The "Bowman" Lecture

ON THE

RELATION OF CERTAIN DISEASES OF THE EYE TO GOUT.

Delivered before the Ophthalmological Society of the United Kingdom, Nov. 13th, 1884, by

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GENTLEMEN,—At the request of your Council I have the honour this evening to deliver the first "Bowman" Lecture. This lecture has been instituted with the design of gratefully commemorating the services of Sir William Boman to science, and more particularly those which he has rendered to this Society in his capacity as its first president. It is intended that the lecturer shall on each occasion undertake the investigation of some special subject in connexion with ophthalmology. I do not think that any more appropriate method could have been devised by which to pay respect to one of our very foremost workers. For myself, I can only say that I feel deeply the responsibility of the yet very agreeable duty which has devolved upon me, and could heartily wish that your Council had selected someone more capable of doing it justice. Having made this personal apology, I feel, however, that I shall best honour the name of Bowman by trying to imitate the example of his life, and proceeding at once, to the best of my ability, to deal with the subject in hand.

I take for the subject of my lecture the relations which exist between certain Diseases of the Eye and Gout. We shall have to classify several different forms of disease—for the most part, but not exclusively, inflammations of the iris—to describe their peculiarities and to examine the evidence which is forthcoming as to their real connexion with gout. The inquiry is an important one, for a gout taint is an extremely common occurrence in a large proportion of the British population. The investigation is also in many of its ramifications one of great intricacy and difficulty. Certain facts we shall, I trust, be able to establish with clearness; but respecting many others we shall not be able to get further than the stage of more or less confident inference. I had at one time intended to bring before you a good deal in the form of attempted proof—that is, of statistical tabular statements of fact. I have found, however, in the preparation of the lecture that the time at my disposal will not permit of more than a brief sketch of the whole subject, and I shall therefore, on compulsion, spare you much of the detail. It is, however, only just both to you and to myself to state that my arguments and assertions this evening will be based upon the careful examination of a lengthy series of recorded cases. A large part of these will be found given at length in vols. vii. and viii. of the Ophthalmic Hospital Reports, and the remainder I have in type before me, although not yet published.

Definitions of Gout and Rheumatism.—Before we proceed to inquire whether gout may be deemed to be the cause in some instances of such diseases as hæmorrhagic retinitis, recurring iritis, glaucoma, and others, it may be well to state that I wish to keep a clear distinction between gout and rheumatism. This distinction is in practice often very difficult, and sometimes quite impossible to draw, but for all purposes of accurate clinical pathology we must insist upon its existence. By gout I shall mean all states of health which are, whether directly or remotely, connected with the accumulation of lithate of soda in the blood as the result of overfeeding or defective assimilation.

Under the laws of inheritance of morbid tendency it may easily be the fact that a person may feel the effects of this condition in his parents, who may yet himself never exhibit it. We may have a form of inherited gout which is not associated in the patient with either lithiasis or lithæmia. Hence, as I shall have to show presently, some very peculiar forms of morbid action.

Thus it may perhaps be conveniently laid down that there are two fundamental conceptions of what gout is. They are not antagonistic, but rather in mutual coexistence. In practice the two methods of influence constantly modify each other.

What I may call the primitive conception of gout regards it as due to a state of the blood induced in part by errors in feeding, and in part by defects in assimilation and depuration. It has regard to the food, to the digestive power, to habits as regards exercise, and the integrity of the kidneys. In this form of dietetic or humoral gout the stage of lithæmia is essential, and the final product of deposit of urates in the tissues is almost equally so. We must, however, seek a wider vision than this. As an introductory stage to such wider view let us imagine the condition of a man who many years ago was subjected for a long period to the ordinary causes of primitive or humoral gout, but who for a considerable series of years has carefully avoided them. In such a person it is easy to see that although his blood may have been long kept free from excess of urates, yet, as the consequence of conditions of long duration in the past, his tissues may have received modification, and may be prone still to suffer in a peculiar manner when exposed to the ordinary exciting causes of disease. In particular they may be liable to grow old on a peculiar type. Not only are his tissues in general modified, but those of his nervous and vascular systems have probably been especially influenced. Hence the power of control over any process of inflammation, by whatever cause it may have been initiated, is peculiar and effective. If such a man sprain a joint it will not recover in the way it would have done had he never had gout, yet the joint may nevertheless be very far from assuming a typical gouty state. There may be no tendency whatever to the deposit of urates. Now, let us take another step in the attempt to give reality to our conceptions of the hidden influences under which the everyday phenomena about us are produced. Let us imagine that such a person as we have supposed—one who has suffered severely and through many years from humoral gout—becomes a parent. His offspring will inherit his tissues, his tendencies as regards digestion, kidney excretion, skin elimination, and all the rest. These will, no doubt, give a greatly increased proclivity to common typical gout should the cause of it come into play. They may, however, do much more than this. They may render their subject liable—quite independently of exciting causes, or with but little help from them—to forms of inflammation or of degraded nutrition, which are not unequivocal gout, but which are yet the direct consequence of it in his predecessors. The modification which is here inherited is, I suggest, of the tissues and not of the blood, though it is obviously very easy that the two may complicate each other. The subject of tissue modifications from inherited gout may easily become the victim of humoral gout as well.

Inherited Gout.—It is clear from this argument that we must be prepared to see inherited gout assume very different forms from those to which we are so well accustomed to in the primitive type. Permit me now to suggest that it is the clinical, or rather the social, fact that a not inconsiderable proportion of the well-to-do classes of the British population are born under the conditions which I have been supposing. The number of these who are the descendants of parents who have suffered from humoral gout is very large indeed, and, especially in our large towns, it is by no means restricted to the educated classes. We must be prepared, then, to encounter, not unfrequently, peculiar types of morbid action which derive their peculiarities from this association. It is the duty of the clinical investigator to carefully examine the evidence which is forthcoming as regards each before he admits its claim. Certain diseases of the eye for which this claim is with more or less confidence put forward will form part of our topics for discussion this evening. It may, perhaps, facilitate matters if I express at this stage the belief that most of the varieties of what is called rheumatic gout stand in this relation to true gout. This list would include lumbago, sciatica, neuralgia, crippling rheumatism, arthritis deformans, osteo-arthritis, many forms of iritis, and many cases of glaucoma. I by no means wish to suggest my belief that any one of these is in all cases in some degree dependent upon the inheritance of gout. Some of them are doubtless in not a few instances purely rheumatic, and this admission renders it desirable that I should say two or three words as to what our conception of rheumatism ought for the most part to be. Let me then hint that from our primitive idea of rheumatism I should like to exclude all causes having reference to food or assimilation, and to count only those which

regard climate and weather, and especially exposure to cold and damp. The rheumatic diathesis, like that of gout, may become ingrained, and at the same time modified by hereditary transmission, and in this connexion it is easy to overlook its original causes, and even to believe that it may begin spontaneously, or in consequence of other influences than the true ones. The hereditary diathesis of rheumatism (arthritic susceptibility to weather) may easily coexist with that of gout (arthritic susceptibility to diet), and each of them or both together may combine in endless variety with other forms of morbid tendency. It follows that we have to study many hybrid or mongrel types of disease in more or less close connexion with them.

"Hot Eye," Irritable Eyes, Quiet Gout, &c.—There is a condition to which, for want of a better name, I have for long been in the habit of recognising as "hot eye." It is one of the many curious phenomena which attend quiet gout. I use the term "quiet gout" as distinct from acutely paroxysmal gout. In families liable to gout, for one person who becomes the subject of acute attacks of podagra, what is known as unequivocal gout, there are often half a dozen who are the subjects of minor symptoms which denote a similar tendency. In them the tendency never rises to sufficient height to induce a severe and characteristic paroxysm. They are nevertheless liable, after taking beer or wine injudiciously as to quantity or quality, to experience slight pricking pains in the joints, attended by lithic acid in the urine and other unmistakable signs of the diathesis. In many these symptoms occur in such invariable association with the causes suggested, that it is not possible to doubt as to their nature. The liability varies with the weather and time of year, and it often ends, unless precautions are taken, in a sharp attack in the great toe. The terms "suppressed gout," or better, "undeclared gout," are often used in reference to it; but since it is simply a minor form of the disease not in any way suppressed, and certainly not to trained observers undeclared, I prefer the term "quiet." Amongst the frequent occurrences which denote its presence are repeated short attacks of congestion of the eye. Usually one only is affected, but sometimes both. The conjunctiva becomes red, and the eyeball feels hot, and pricks, as if sand were in it. The attack may come on within half an hour of the meal which has disagreed, and it may last a few hours, or a day or two. Sometimes, owing to interference with the ciliary muscle, vision is slightly dim, and all attempts at accommodation are usually painful. Those who are liable to hot eye not unfrequently in the end suffer from iritis; indeed, it is not unfrequently an introductory stage to that disease. On the other hand, many are liable for years to very frequent attacks of it without apparently any risk of its assuming more serious proportions. In the intervals of the attacks the eye is usually quite well, and it is indeed its definitely paroxysmal character, its sudden development, and very complete and rapid disappearance, which especially mark its arthritic relationship.

In connexion with this subject it may be noted that not unfrequently those who suffer from unequivocal gout experience shoots of sharp pain in the eyeballs, the nature of which they well understand. A man, William B——, aged fifty-four, who had suffered much from gout, and whose father and four of his father's brothers had all had it, complained much of this kind of pain, yet he had never had iritis. When he was gouty he said he frequently had "darts of pain through the middle of each eyeball," and occasionally across the bridge of the nose.

A further practical note I must ask leave to make. It is to the effect that many cases of irritable hyperæsthetic and easily tired eyes in young persons are in association with inherited gout. I feel sure that in some of these cases we are in the present day in danger of pushing the recommendation of spectacles to an excess. Some slight degree of hypermetropia may be detected, and it is assumed to explain the irritability of the eye. Yet glasses do no good, and, in fact, only increase the irritation. In such cases, very often, the real malady is inherited gout.

Transverse Calcareous Bands of the Cornea.—I must admit, in the commencement of our investigation, that little or no evidence exists as to the deposit of urate of soda in any of the structures of the eye. I doubt whether it has ever been proved in any single case, although several observers have suggested its presence. I trust, however, that we are long past the stage of belief which regards such deposit as essential to a gouty inflammation. The nearest approach to proof of gout deposit has been made probably in the case of what are known as the transverse calcareous bands in the cornea. Sir William Bowman, in the year 1848, was, I believe, the first to publish cases of this kind, but the earliest case had been observed by Mr. Dixon. Valuable information respecting the disease has recently been collected and studied by Mr. Nettleship. I believe I may fairly sum up the present state of our knowledge by saying that no one has yet proved that the salt deposited is that of gout. It is usually calcareous. The disease occurs in persons very likely to suffer from gout, and sometimes with a gouty history, but we are not as yet justified in holding that this earthy deposit is in direct connexion with that diathesis.

Arthritic Iritis.—It will be admitted without dispute from anyone that there are several forms of iritis which are arthritic in their origin—in other words, they occur to those who are liable to attacks of inflammation of joints, and the inflammations of the eye occur under conditions similar to those which excite the inflammations of the joint. Both are in some cases prone to occur in an acute but transitory attack. Both are very apt to recur after periods of complete immunity, whilst in other cases both may assume a chronic, persisting, and destructive form. With such features of similarity we are justified in assuming, as indeed is done by all authors, that they are due to the same causes. The problem which I have to consider to-night is whether these causes belong to gout or to the rheumatic class; whether they are sometimes the one and sometimes the other; and, lastly, whether they are not in some cases of a hybrid or mixed nature. Permit me briefly to state some of the peculiarities which are to be observed in different types of arthritic iritis; and to ask respecting each what evidence we possess which would connect them with the tendency to gout. Let us take first the common form in which the iritis occurs in acute transitory paroxysms. Of this, good typical examples will be in the memory of us all. Its subjects are usually men, and often of vigorous health, and past middle life. The iritis scarcely ever affects both eyes at the same time, but occurs first to one and then to the other, sometimes keeping to the same eye during several successive attacks, and then leaving it to assail its fellow. The attacks are often acute, beginning very suddenly, and attended with great pain. When they subside, they subside completely, and leave the eye without the slightest degree of irritability. The duration of the severity of an attack may vary greatly at different times in the same patient. The tendency to form adhesions is extremely great. It is very remarkable how in most cases of this class the disease restricts itself to the iris and shows no tendency to disorganise the globe. Thus, a patient in whom, in consequence of repeated attacks, the pupils may be occluded, with the exception of mere pinhole apertures, may yet continue to enjoy very fair sight. I by no means wish to imply that this is usually the case. The case of Dr. Curry, as recorded by himself in the Medico-Chirurgical Transactions, is a good type form of this disease. Dr. Curry had suffered much from true gout. I may cite, however, as another good type illustration of this class, that of a gentleman whose friendship I had the privilege to enjoy during a long period of my early life. He was a florid fair complexioned man, of vigorous habits, a large eater, and through life accustomed to drink beer. He inherited rheumatism, but there was no known history of gout. He had suffered in boyhood in consequence, as he believed, of too free bathing when hot, from rheumatic fever. When I knew him first he was about forty-five, and from that time onwards to his death, at the age of sixty, he had a variety of arthritic complaints—lumbago, sciatica, chronic arthritis of the knees and other joints, and recurrent iritis. Both his pupils were closed with the exception of very small apertures, through which, however, he still continued to see enough to follow an occupation in which everything depended on good sight. I attended this gentleman year after year, usually in the early part of February, for most severe attacks of iritis, never affecting both eyes at once. He was benefited by large doses of iodide of potassium and the free use of blisters. At length his attacks ceased to occur, and during the ten years preceding his death I believe he had not had any. I made a post-mortem examination of his body, and found no proof of gout. His knees contained loose cartilages, and there were patches where the articular cartilage was wearing away, but there was no urate of soda.

I have the record of a considerable number of cases in which the liability to these recurrent forms of iritis occur

in those who were the subjects of unequivocal gout. But there were a far larger number in which the concomitant symptoms were of rheumatic arthritis and not of true gout. The question remains, however, whether this form of rheumatic gout, although unattended by lithate of soda deposit, be not in reality a hybrid disease possessing, in addition to an unquestionable share of rheumatism, an admixture also of gout tendency. The infrequency of the disease in women, the age, the habit of body and the mode of life of those who are usually its subject, seem to me to strongly support this view. So does also the extreme severity of the attacks, and their rapid and complete subsidence, when once the point is turned. When this form of iritis does occur to women, it is never, I think, so acute or so paroxysmal as in men; and it almost always happens to those whose relatives have suffered from gout.

Various Forms of Arthritic Iritis.—Next to this form of recurrent iritis, and including perhaps some of its examples, I have to mention the iritis which occurs in connexion with gonorrhœal rheumatism. All observers will admit, I think, that iritis associated with ordinary rheumatic fever is infinitely rare. So also is it in connexion with that type of arthritis to which the name of crippling rheumatism may be given—in other words, iritis in association with either acute or chronic rheumatism is a thing that we scarcely ever observe. In men, however, the rheumatic affections, whether acute or chronic, which are induced by gonorrhœa, are not unfrequently accompanied by iritis. This iritis is less distinctly paroxysmal and much more liable to persist and be destructive than the case in the form which I have just described. My explanation of this is easy. The reason why gonorrhœal rheumatism so often causes iritis is because it occurs usually in the subjects of inherited gout.

A third form of arthritic iritis is one which affects women more frequently than men, which not unfrequently attacks both eyes at once, which is apt to spread to the ciliary region and choroid; to persist and to prove destructive. In a very considerable proportion of the women who suffer from this form there is a history of gout in former generations.

Another group of arthritic iritis might be constituted of cases in which the malady happens to young patients, and proves but slightly, if at all, liable to recur. These single attacks of iritis without history of gonorrhœa or syphilis, and occurring in young persons, usually, I think, affect the male sex, and almost always there is the history of gout in relatives.

I must just mention, in order to complete my classification, although it is but of little clinical importance, the group of cases in which iritis occurs in association with glycosuria. In these, according to my experience, the patient is almost always the subject of gout also.

To sum up, then, I would say that although in many individual cases of arthritic iritis there may be no proof of liability to gout in either the patient or his relatives, yet the tenour of the evidence in general is in favour of the conclusion that when iritis occurs there is in reality some gout complication. The more purely and definitely is the case one of rheumatism, and the less the probability that iritis will happen. When iritis occurs the complications are almost invariably those which suggest what we call rheumatic gout rather than rheumatism pure and simple; that the smaller joints are often affected and nodi digitorum present, whilst sciatica, lumbago, and neuralgia are frequent complications. I have elsewhere tried to prove that gonorrheal rheumatism occurs in nine cases out of ten to those who inherit a gouty constitution, and that it is chiefly this inheritance that gives the proclivity to it. I cannot stop now to recapitulate the evidence on which this belief rests; but if it be trustworthy, it offers an explanation of the fact that iritis is so frequently met with in association with this type of rheumatism.

In certain cases of iritis with arthritic associations a very peculiar condition is observed. I allude to the filling of the anterior chamber with a soft gelatinous jelly-like mass. This material, which produces an appearance most alarming to the uninitiated, concealing the pupil and suggesting entire destruction of the cornea, is susceptible of very rapid absorption, and may, in the course of a very few hours, clear right away. I believe that in some cases of syphilitic iritis this peculiar form of appearance has been noticed; but if I were to speak from my own experience, I should cite it as a symptom very strongly indicative of gout. I would make the same remark, though with less confidence, respecting the rare cases of iritis complicated with hæmorrhage.

Statistics as regards Arthritic Iritis.—My report on arthritic iritis, published in the *Ophthalmic Journal* of 1872–74, contains the narrative of 104 cases which are suitable for our present purpose; for various reasons I omit a few on account of doubts as to their nature or imperfections as to the details. The report comprises cases of all varieties in which either rheumatism or gout, or the two together, were supposed to have been the causes of inflammation of the eye. They were collected from my note-books, both from hospital and private practice, up to the date mentioned. It is right to state that at that time my opinions as to the influence of true gout were less advanced than they are at present, and that my knowledge as to the means of recognising it was also less. The notes of many of the cases had been taken some years before they were published, and thus certain inquiries, which I should now carefully make, were unfortunately omitted. On this account I have no doubt that we must consider that the report does not show the influence of gout so strongly as it would have done had the cases been taken with better knowledge. Out of the 104 cases, I find a positive history of gout having occurred in the patient in only eighteen cases, and only in twenty-nine was there the history of positive gout in near relatives. It is to be observed, however, that these numbers take cognisance only of what has been termed "unequivocal gout"—namely, of those in which an unmistakable attack of inflammation in the great toe or other single joint had unquestionably occurred. It omits altogether the much larger number in which the gouty tendency had remained undeclared or had been manifested only in what we may term its quiet form. Any one who will examine for himself the narratives to which I refer will, I feel sure, agree with me in this opinion. In a very large proportion there was, I think, good reason for believing that a taint of gout existed where the narrative mentions rheumatism only; the arthritis had constantly been of the chronic type, and had very frequently presented exceptional conditions. If we may count such maladies as sciatica, lumbago, neuralgia, nodi digitorum, gonorrhœal rheumatism, rheumatic gout when affecting the smaller joints, as being for the most part indications of gout rather than of pure rheumatism, we shall then find that facts at any rate suspicious of gout are present in nearly all the cases. It is, I think, decidedly exceptional for rheumatism pure and uncomplicated to show any tendency to attack the tissues of the eye. Iritis in conjunction with rheumatic fever of the ordinary form is almost unknown, and even in cases in which patients suffer from repeated attacks, as is sometimes seen, the eyes usually remain free. So soon, however, as changes of type occur, the disease showing a tendency to attack the smaller joints, or to affect only single joints, or to pass into the chronic form, then we get the liability on the part of the eye to suffer. On this point my own experience is quite in accordance with that previously expressed by an acute and zealous clinical observer, the late Dr. Fuller. Dr. Fuller in his first edition, speaking of rheumatic gout, stated that in 11 out of 101 cases which he had tabulated when medical registrar to St. George's Hospital, the eye had suffered more or less severely, and in 14 out of 193 cases which had subsequently been under his own care in the hospital. In a second edition, he stated that he had so far modified or developed that opinion, that he had come to believe that many, if not all, of the cases in which this complication occurs were examples of obscure gout or else of gonorrhœal rheumatism, adding, "This at least is certain, that since my attention has been specially directed to this question, I have been enabled to find a gouty or venereal [meaning, I think, gonorrhœal] taint in every case in which the eye has been inflamed in connexion with presumed rheumatic gout." This is strong testimony, stronger certainly than I am prepared to give, but I doubt whether it much exceeds the truth. Among other authors who have distinctly recognised gout as a cause of diseases of the eye, and appear to have referred a considerable proportion of those diseases, when arthritic, to gout rather than to rheumatism, I may mention Dr. Jacob, Mr. Weller, Mr. Middlemore, Dr. Copland, and perhaps Mr. Wardrop. Mr. Middlemore goes so far as to think that he has seen in one or two cases the pupil occupied by calcareous concretion of a gouty nature. None of these observers have, I think, recognised any other special disease as connected with gout than recurrent iritis. Almost invariably I find sclerotitis put down as rheumatic.

(*To be concluded.*)

CHOLERA.

BY MAX VON PETTENKOFER, M.D.,
OF MUNICH.

(*Continued from page 864.*)

THE further one investigates the drinking-water theory the more and more improbable does it appear. Robert Koch, too, the famous bacteriologist, has hitherto failed to substantiate the drinking-water theory, and I feel convinced that the time is not far distant when he will own that he has gone in the wrong direction. Koch has succeeded in finding the comma bacillus in a water tank in a region where cholera was prevalent. I have the greatest respect for this important discovery, not as a solution of the cholera question, but only as a very promising field for pathological, not epidemiological, inquiry. It must be remembered that cholera was already prevalent in the neighbourhood of the water tank from which Koch obtained the bacillus. Now, this tank was used not only for drinking purposes, but also for bathing the person and washing clothes, as Koch himself admits. According to my view the comma bacillus must have been present in the water. It had not been shown, however, that the bacillus was in the water before the outbreak of cholera. Koch is of opinion that all the bacilli in the water tank could not have come from the washing of clothes of cholera patients, but must have partly been derived from multiplication, yet he forgets that, as he himself has shown, the meat broth in which the bacilli grow must not be too dilute. It would have been interesting if Koch had estimated the strength of the nutritive material in the water tank. But what chiefly contradicts the doctrines of the contagionists is the simultaneous disappearance of the cholera on land and the cholera bacillus in the water-tank. If it were really true that every case of cholera, the first as well as the last in an epidemic, had the same infective material in its intestinal discharge, and that the epidemic only ceased because the susceptibility of man had passed away, then the bacillus would continue to exist in the tank, always supposing that there was sufficient pabulum for it. And thus it is most probable that the bacillus gets into the tank from man, and not *vice versâ*. Whilst Koch was in Calcutta the English physicians there imbued him with their views on cholera and drinking water. The English had been brought up on the drinking water theory of typhoid fever and cholera, and could only lay it aside with difficulty. But a few of those English physicians who had studied widespread epidemics had renounced their original ideas. Dr. Bryden (the chief of the Statistical Department), Dr. J. M. Cuningham (the sanitary commissioner), Dr. John Macpherson (the Inspector-General of the Bengal Army), Dr. Lewis, and Dr. Douglas Cunningham were all disbelievers in the drinking-water theory. Koch was further strengthened in his views, in opposition to the few Englishmen just named, from the fact that after Fort William in Calcutta was supplied with pure water no more cases of cholera occurred there, although it had formerly been ravaged by the disease. The gentlemen in Calcutta had not, however, told Koch the whole truth. For it was a fact that cholera had begun to decrease in Fort William since 1863, and yet the fresh water-supply was introduced as late as March 25th, 1873. Moreover, it was not true that the only improvement then effected was a change in the water-supply, for many other changes were carried out, the fortress being made a model of cleanliness. Alterations in the drainage of the soil were effected in and around the foundations of the building, which before this was nothing more than a morass during the rainy season; so that, inasmuch as the nature of the soil, as well as the drinking water, was changed, the case of Fort William affords an argument as much in favour of the localists as it does for the contagionists. I may here call to mind an episode which was much commented on at the time, and which is perhaps of the nature of an experiment. Macnamara writes, in his work on Cholera: "In connexion with this position I may narrate a case which happened in another part of the country, but for which the facts can be vouched. Some dejecta from a case of cholera found their way into a jug of drinking water, and the mixture was exposed to the heat of the sun for the day. Early the next morning a small quantity of this water was drunk by nineteen individuals. Nothing was noticed, either in the appearance or taste of the water, by those who had partaken of it. All remained well during the first day. On the following morning one man was seized with cholera as he awoke; the others remained well till the second day had passed, when two more cases of cholera occurred, and the day after that two other cases were observed. The rest of the party remained well till sunset of the third day, when again two were seized with illness. These were the last cases, and the other fourteen persons continued to enjoy immunity from diarrhœa, cholera, or any disturbance of health." This case is, etiologically, not worth much. Where was the original case from which the infection was supposed to have come? Was it not possible for the nineteen persons to be brought under the same circumstances as those under which the original case had become affected? Were the nineteen in a place which was as a rule free from cholera, and could they only be affected through the drinking water? Several cases in India are known to me where guests at a banquet having drunk no water were yet the victims of cholera. For instance, at a baptismal feast which a sergeant gave a gallon and a half (six litres and three-quarters) of rum was supplied. Twelve persons, including the man and his wife, sat down to the banquet, and on the following evening the whole of the group, except the baby which still lives in Calcutta, were in their graves. At this feast there was no question of a mixture of anything with the stools of cholera.

When I ask myself how it is that men usually astute can place such implicit reliance on the drinking-water theory, which entails such ambiguity and contradiction, I can only think of two reasons. Partly, no doubt, there exists the belief that on general hygienic grounds no stone should be left unturned in order to procure a good supply of water where it had previously been bad, and thus the fear of death and the devil proves stronger than the love of truth and God. Again, the drinking-water doctrine appears to many to be the lesser evil as compared with the threatening local and periodical predisposition, which implies a more mysterious and less definable conception. They imagine that the, to them, uncomfortable facts of time and place may be explained on the drinking-water doctrine. The places where the cholera excreta can contaminate the drinking water have a local disposition, and the times at which even cholera prevails, and excreta may contaminate springs and watercourses, have to do with periodical dispositions, and thus they escape from explaining the subtle influences of soil and ground water. But anyone who thoroughly investigates the local and periodical factors in epidemics of cholera must reject such an explanation. A study of the tables previously given from Brauser places great obstacles in the way of accepting these doctrines. The constant periodicity of cholera in Calcutta or Madras cannot thus be cleared up. In the same way it is impossible to understand on this doctrine how it is that the hot dry season, which must be destructive to the bacilli, is the period during which cholera is most prevalent, and how it is that in the hot and wet season, which is favourable to the growth of bacilli, cholera is at its lowest ebb. That cholera and typhoid fever are more flouri-hing when the ground water is sinking than when it is rising has been explained by the drinking-water theorists on the view that when the ground water is falling it becomes more concentrated, thicker, and therefore more dangerous. Now, the prolonged researches of Wagner, Aubry, and Port have proved the direct opposite. When the ground water is low it is always purer than when high. Dr. Port has studied for a number of years the state of the water in the garrisons of Munich with a view of watching its relations with the movement of typhoid fever, and he has found that when the water began to be impure then a falling off in the disease might be predicted. Why this should be so has received an experimental explanation from Dr. Franz Hoffmann. Great and numerous are the objections to the explanation of the local disposition to cholera by means of the drinking-water doctrine. Lyons was until the year 1858 supplied with water from superficial wells. The analyses of the waters from a number of the wells prior to the introduction of a better supply would astonish anyone. The contagionists get out of their difficulties by merely asserting that though it is always the water which transmits cholera, yet there are a thousand ways in which this may be accomplished. But we have already shown that severe epidemics may occur without

drinking water being implicated, and consequently it is questionable whether, in those epidemics where the water may have been a factor, other causes did not play a more important part in the development of the malady. It is for the contagionists to prove why the infection by drinking water can only be verified in certain cases. The most popular argument of the contagionists is the proposition that cholera spreads by human intercourse, a fact which I unhesitatingly accept. But the interpretation which the contagionists put upon the fact is nullified by the fact itself, as is shown by a closer study of all the influences of intercommunication, whether by land or sea.

In many regions there are main streets running in watered valleys in the direction of the stream, and yet other principal streets having a direction at right angles to that of the stream. In these streets, as is well known, at short intervals there exist sites which may be dotted on a special map where the frequency of cholera may be investigated, just as I had done for the epidemic of 1854 in Bavaria. It transpired that the sites of the epidemic preferred to spread in the length of those streets in the valleys which followed the course of the stream. When, however, one investigated the epidemic spots in streets which cross valleys between which hills or tablelands lie, it was found that the cholera attacks those sites which lie in a valley which crosses the streets, and the places which are situate on the heights between two valleys are spared. In the valleys, however, which are only crossed by one principal road, the epidemic spreads itself in places which lie in the valley upwards and downwards in the direction of the river, although the intercommunication may be very slight and the river not navigable. In Central India for a long time the great rivers were the principal means of communication, and the cholera spread by preference along these routes. When in recent times the Indian railways were started, it was thought that cholera would forsake the old routes and travel along the railway. But such was found by Cornish not to be the case. Of course the same statement holds good in Europe. Saxony is perhaps as thickly peopled and as much overrun with railways as any State in Germany. Since 1836 cholera prevailed in Saxony on no less than eleven different years; but, as Reinhard and Günther have proved, its propagation was not in any way directed by the developing network of railways. Certain places in Saxony always were the centres for cholera, and so remained despite the railways. Freiberg, in Saxony, was never visited by cholera either before or after the railway was completed, whilst certain parts of the Mulde and Pleisse Thal were regularly visited. As often as an epidemic of cholera broke out in North or South Germany, cases were observed in Saxony; but for an epidemic to develop in Saxony always required time. Every year in Saxony which was marked by a heavy death-rate from cholera was preceded by a year during which the mortality was comparatively slight. Thus, in 1849 there were 488 deaths; in 1850, 1551; in 1865, 358; and in 1866 as many as 6731; again, only 4 cases in 1872, but 365 in 1873.

If the cholera can be brought by sufferers direct from India to Toulon, where the sea-passage lasts only three weeks, then if the disease prevail in North Germany it must always spread to South and West Germany, and inversely, since we have nothing but cholera on the one hand and healthy people on the other. But whoever studies the history of cholera will find nothing but contradictions of this postulate of the contagionists. In 1854 Berlin took no cholera from Munich, and in 1866 Munich received no cholera from Berlin, notwithstanding extensive intercommunication during the Industrial Exhibition and despite the war.

(To be continued.)

THE HOSPITALS ASSOCIATION.—At the general meetings of this Association to be held during the winter, papers on the following subjects, amongst others, will be discussed: On Hospital Ships, by Dr. P. Murray Braidwood; Rediscussion of the Out-patients Question, by Dr. J. S. Bristowe; on Horse Ambulances in connexion with Hospitals, by Captain William Joynson, chairman of the Northern Hospital, Liverpool; Relation of the Provident Dispensary to the Hospital, by Mr. C. J. Radley. The opening meeting will be on Dec. 6th, but it will take the form of a *soirée*, and will be held at the rooms of the Medical Society of London, No. 11, Chandos-street, Cavendish-square, when the members will be received by the Council of the Association.

CHRONIC CATARRHAL LARYNGITIS:

ITS VARIETIES, WITH THEIR ETIOLOGY, PATHOLOGY, AND CLINICAL RELATIONS.

By GORDON HOLMES, M.D.,

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(Concluded from p. 862.)

III. GLANDULAR LARYNGITIS.

Semeiology.—Subjectively considered, the symptoms of this malady have a decided character as regards voice and local sensations, and are even distinct from those of the two affections already described with respect to cough and expectoration. (*a*) Under ordinary circumstances the patient does not suffer from hoarseness, except in cases of a rarely aggravated type; but in a majority of instances the complaint of not being able to emit high or acute vocal tones is made. This symptom, it will be seen, is an etiological one, as it is not likely to be noticed or dwelt on unless by professional speakers or singers. (*b*) A sensation in the throat of heat and pricking or stinging usually accompanies this disease, and in the more pronounced instances has a very troublesome and persistent character. In addition, dryness of the throat, provoking frequent efforts of swallowing, in order to gain the moistening influence of the saliva, is very constantly present. (*c*) Hacking efforts, so common in the two former kinds of catarrhal laryngitis, and involuntary cough, scarcely exist in this malady. (*d*) Expectoration also is conspicuous by its absence. The condition of the larynx, being one of abnormal dryness demanding extra deglutitory acts for the sake of moisture, does not favour the development of this and the last symptom. Small shreds of partly dried mucus are, however, sometimes raised by voluntary coughing. (*e*) As regards dysphagia, pain, spontaneous or on external pressure, and constitutional symptoms, they are rarely if ever present, and in uncomplicated cases can never attain to any marked degree.

The *objective* sign of this malady is a granular condition of the mucous membrane in those positions where the racemose glands or follicles[1] are most numerous. This phenomenon must, therefore, be especially looked for over and along the sides of the arytenoid cartilages, chiefly towards their front aspects. Such is the most constant site of the granulations, but they may occur to a lesser extent in other places, particularly on the cushion of the epiglottis. In slight cases the elevations are few, but in advanced examples they may be so numerous and closely packed that the affected surface has the appearance of a fine shagreen. In the early stages they present a red or congested colour, but after they have been in existence for many months this hue is gradually lost, and finally replaced by a dirty white or greyish tint, most evident at the centre of the summit of each granulation. The patches or filaments of white concretion or exudation, so constantly seen in granular pharynx, are seldom or never observed in this, the analogous condition of the larynx. In the most developed and persistent cases, however, the top of each elevation may become the seat of a minute ragged opening, to some extent to be considered as a small perforating ulcer. The ordinary state of the mucous membrane generally is one of slight congestion and dryness, but in the milder cases it may be comparatively healthy outside the granulations, whilst in the worst type of the malady it has a markedly dry, dusky, and thickened appearance. In pathological, or at least etiological, association with follicular laryngitis elevations, seemingly of a dense and indolent hypertrophic character, are occasionally met with on the vocal bands, especially on their free edges. This is the con-

[1] Coyne's (*op. cit.*) discoveries are briefly:—(1) The bed adjacent to the epithelium consists of a reticulated lymphoid tissue, like that found in similar relationship in the small intestine. (2) Closed follicles, similar to those of the small intestine, exist in the superficial part of the mucous derma, estimated at thirty to forty in number. (3) On the free edge of the vocal bands papillæ are found, "certainly vascular and probably nervous": they are best developed anteriorly. Kölliker, Rindfleisch, &c., had denied the existence of follicles in the larynx. In 1858 Rheiner (loc. cit.) had said: "The laryngeal mucous membrane, as is sufficiently proved, possesses nowhere a trace of a papillary body." In 1873, however, Luschka (Der Kehlkopf, &c., p. 171) asserted the existence of papillæ, though few in number, in some parts of the larynx. These, according to Coyne, were merely folds of the mucous membrane.

dition named "chorditis tuberosa" by Türck.[2] It is rare to find more than a single tuber or node in any given instance. A more extended disease of the kind is spoken of by Türck as trachoma of the vocal bands, in which a more general thickening or mammillated condition of the ligaments is observed.

Pathogenesis.—The leading cause of this disease is excessive use of the voice in public speaking or singing, but those who suffer probably always have a constitutional predisposition in the form of some cachexia, either strumous or the so-called "herpetic diathesis" of the French pathologists.[3] But the direct subsidiary cause is persistent overwork of the racemose glands and follicles of the laryngeal mucous membrane, and the affection has a perfect etiological analogy with the skin disease named lichen tropicus, or "prickly heat," in which a continued and exaggerated demand on the cutaneous sweat glands urges them into a state of subacute hyperæmia and inflammation.

The most detailed and reasoned description of follicular laryngitis has been given by Krishaber and Peter;[4] their conception of the process by which the malady is brought about in professional voice users is well worthy of reproduction in their own words: "In these cases the mucous membrane is brought every instant in contact with air rapidly inspired, which has not passed through the nose and its channels, so as to be there warmed and moistened, and which consequently arrives in abundant quantity, cold and dry, in the pharynx and larynx. To combat the aridity which parches it, the mucous membrane secretes sufficiently for the lubricating of its surface. With this object all the pharyngo-nasal and laryngeal glands combine their action. Now all repeatedly exaggerated secretion is a cause for hypertrophy of the organ at work; hence then is hypertrophy of the pharyngeal and laryngeal glands. As to the pharyngeal glands, however, we have only a physiological act in response to a necessity; they secrete merely because solicited by the cold air. But we shall see that the glands of the larynx not only obey this same solicitation, but that a wholly mechanical cause intervenes to exaggerate their secretion. This mechanical cause is none other than the proper and multiple movements of the larynx, in which the mucous membrane is found to be compressed, elongated, thrown into vibration—in a word, influenced by the essential mechanism of function." Hence as the parts of the larynx most rich in glands—viz., the arytenoid cartilages and the interarytenoid fold,—are also the principal seat of the intrinsic motions of the organ, the site of glandular laryngitis agrees practically with the coincidence of the anatomical and functional causes. These observations apply in a lesser degree to the base of the epiglottis, which is the second seat of motion. The difficulty of producing high notes is also well explained by Krishaber and Peter. It clearly depends on the thickening of the tissues over and between the arytenoid cartilages, which being thus hampered in their action cannot close the glottis tightly, especially at the intercartilaginous portion. Hence the fixity and tension of the vocal bands necessary in the upper register of the voice are insufficiently attainable. This symptom would of course arise in any form of laryngeal disease accompanied by thickening in the same position, and is only particularly associated with glandular laryngitis on account of the frequency of this affection amongst the members of voice using professions. Apart from excessive vocal exercise, glandular laryngitis arises sometimes from the more ordinary sources of throat irritation—i.e., abuse of alcohol, inhalation of acrid vapours or powders, smoking in excess, &c. Under the circumstances, however, it is rarely primary in the larynx, but is an extension of a previous pharyngeal attack. With respect to age and sex, the disease is almost peculiar to the early years of adult life, and is considerably more common in the male sex. Statistics have not yet been collected to ascertain definitely these points. In twenty-one well-recognised cases of my own all occurred between eighteen and thirty-three; seven were females. In nine instances, however, the chief seat of disease was the pharynx.

Pathological anatomy.—Autopsies and other investigations by Lewin,[5] Rühle,[6] Türck,[7] Rindfleisch,[8] De Mussy,[9] and Rheiner[10] are in evidence to determine this part of the subject. The first step of the morbid process appears to be a dilatation with catarrhal proliferation of epithelium of the orifices of the racemose glands. Gradually the whole interior of the glands becomes similarly involved, they pass into a state of persistent hyperæmia, whence a weak but long-continued hyperplasia, and eventually a permanent hypertrophy of their whole substance. The manifest swelling of the glands, however, which gives rise to the granular condition of the mucous membrane is chiefly the result of distension of the cavities by undischarged secretion. This complication is the immediate result of the diseased action at their aperture and in their ducts. At first these become blocked, and afterwards their walls partially agglutinate through imperfect plastic efforts at repair. Later on the pent-up secretion forces its way outwards, and compels the reopening of the ducts, which henceforth are in an irregular and eroded condition, especially at their external apertures. Hence originates the appearance of minute but deep ulcers, few of which have the superficial area of an ordinary pin's head. Such parts of the mucous membrane as do not contain diseased glands are generally free from morbid changes except in contiguity with the granulations, where as a rule a state of simple chronic catarrh prevails. In typical and long-standing cases there may be a general hypertrophy of epithelium, and it occasionally happens that the chronic hyperplasia fixes itself on the dermoid layer of the mucous membrane, which becomes hypertrophied and exhibits papillæ like those of the skin; a class of bodies which are very rare, and until Coyne's researches were thought to be entirely absent from the normal larynx. This latter condition is that first described and named by Förster[11] "dermoid metamorphosis." Such, doubtless, is the nature of the lesion which, when affecting the vocal bands in an irregular manner, gives to the nodular thickening before mentioned as trachoma or chorditis tuberosa.

Diagnosis.—The history of the case, and the etiological inferences therefrom, will often lead us to surmise the existence of glandular laryngitis; and when the pharynx is in a granular state, with subjective symptoms emanating from the larynx, there will be little room for doubt as to the precise pathological condition of the latter organ. But the elevation caused by the diseased glands must be seen with the laryngoscope before a final decision can be arrived at. A better illumination of the larynx is required for these cases than usually suffices for the recognition of other lesions of this part. In the earlier stages of the malady scattered red points will be seen, and later on elevations, mostly in well-defined groups, in the sites of predilection already described.

Prognosis.—As the lesions in this disease extend too deeply to be easily influenced by the ordinary surface applications, the treatment is often protracted; but when the affection clearly springs from excessive vocal exercise, it will get well spontaneously on removal of the cause as readily as lichen tropicus disappears on changing to a temporate climate. Careful local treatment, with preventive measures, will nearly always effect a permanent cure.

Treatment.—As there is generally a constitutional taint, strumous or otherwise, appropriate remedies for its removal, such as cod-liver oil, iron, and other suitable tonics, will have to be administered. Occasionally there is no evidence of any but local disease, and in such instances it will be unadvisable to subject the patient to any general treatment. When the malady occurs in professional speakers and singers the practitioner should impress on the patient the importance of replenishing the breath as much as possible through the nose. The best teachers of elocution have generally counselled a strict adherence to nasal inspiration in public speaking, and considered that this simple measure has a most potent influence in guarding the health of the vocal organs. We even find that in the last century the knowledge of this hygienic fact, then only recognised by experts, was believed to be of such value that it was often sold for a large sum under a pledge of secrecy.[12] In singing, however, the necessity of keeping exact time often compels rapid inspiration through the mouth; but, nevertheless, there are natural pauses in every melody, which should be taken advantage of to refill the lungs through the nose.

As regards *local* treatment, warm or soothing inhalations of steam medicated with benzoin, conium, pine oil, &c., will

[2] Op. cit., p. 165, 206, &c.

[3] It may be shortly described as a proclivity to derangements of the glandular system of the cutaneous or mucous surfaces. For a full exposition see De Mussy, op. cit. [4] Op. cit., p. 627.

[5] Klinik der Krankheiten des Kehlkopfes (Inhalations-therapie), Berlin, 1865, pp. 363, 432, &c.

[6] Die Kehlkopfskrankheiten, Berlin, 1861, p. 83.

[7] Klinik d. Krank. des Kehlkopfes, Berlin, 1865, p. 162.

[8] Handbook of Pathology (Syd. Soc.) vol. i. p. 450, 1872.

[9] Op. cit., p. 89, &c. Microscopical examination by Sappey and Robin.

[10] Loc. cit. [11] Handb. d. path. Anat., p. 321, Jena, 1863.

[12] See Plumptre, King's College Lecture, on Elocution, 1876, p. 59.

be most useful as palliatives when there is much heat and irritative sensation. Astringent lozenges of kino, rhatany, tannic acid, &c., will often much lessen hyperæmia, and daily applications of solutions of perchloride of iron (two drachms to the ounce), sulphate of copper (twenty grains to the ounce), or chloride of zinc (thirty grains to the ounce), simultaneously, may banish this symptom entirely from the surface. Such measures will sometimes suffice to effect a cure in mild and incipient cases. In more obstinate instances insufflation of astringent powders (alum, gallic acid, borax, powdered catechu, &c.), two grains at a time, through a curved tube brought close to the larynx, will be found effective. At the same time the patient may use the astringent solutions of half or quarter strength in the form of spray inhalation, two or three times a day for five minutes at a time. In the long-standing and fully developed examples, however, when the granulations are present in considerable number, an application of more causticity is absolutely necessary, so as to destroy gradually the substance of each elevation. For this purpose nitrate of silver is the only safe and convenient salt. It must be used in the solid form, the end of a curved sound or probe being coated with it (as originated by Lewin), daily, or on alternate days; the caustic must be pressed closely to each granulation or group of the same, by the aid of the laryngeal mirror; and the process must be continued until the elevations are brought down to the level of the normal mucous membrane.

Finsbury-square, E.C.

INTESTINAL RESECTION.

BY C. EGERTON JENNINGS, M.S., F.R.C.S ENG.,
ASSISTANT-SURGEON TO THE NORTH-WEST LONDON HOSPITAL.

THE following experiments were performed, at the suggestion of Sir Spencer Wells, to test the value of a method for removing portions of intestine. Afterwards, the edges of the intestine, above and below the part removed, would be adapted, a cylinder having been previously introduced within the gut to facilitate the application of the sutures. Cylinders, hollowed into tubes with stout walls, conical at either end, have been cast for me in cocoa butter in eight different sizes, the smallest cylinder being of a size suitable for the small intestine of a child, the largest appropriate for the colon of an adult. After the operation the cylinder would be melted by the heat of the body, and the fluid would pass harmlessly along the interior of the intestine. Sir Spencer Wells suggested that perhaps gelatine would be the best substance for the composition of the hollow or tubular cylinders. So prepared they are slightly flexible, a very important advantage where it is impossible to withdraw much of the intestine from the abdomen during the operation. The cylinders are made by Probyn and Company.

Experiment 1.—Performed on a black-and-tan bitch, weighing 16·3 lb. July 18th, 4.20 P.M.: Subcutaneous injection of a grain and a half of morphine and one-fifty-sixth of a grain of atropine. 5.30: Ether, mixed with a little ammonia, was administered, that the fluidity of the blood might be well maintained during the operation, and every bleeding point secured. Listerian precautions, save the spray, were taken. After the abdomen had been opened in the linea alba to the extent of 3½ in., a piece of the small intestine was withdrawn, but at once returned into the abdomen, since the smallest cylinders which had been provided were of considerably larger size than the ileum of this animal. The sigmoid flexure was therefore withdrawn and isolated from the abdominal cavity by being passed through a small aperture made in the centre of a sheet of carbolised gutta-percha tissue. A piece of the gut about 2 in. in length was separated, from the remainder of the knuckle, by two ligatures. A triangular portion of the mesentery was excised, the base of the triangle corresponding with the part of the bowel included between the ligatures. All bleeding points having been secured—the hæmorrhage was very great,—the intestine was cut through with scissors above the upper and below the lower ligature. A cocoa-butter cylinder having been inserted, the edges of the bowel were united at a point diametrically opposite to the mesenteric border by an interrupted Lembert's suture of fine carbolised silk. By means of two continuous sutures, which included the peritoneal and muscular tunics, the remainder of the circumference was closed. The divided edges of the mesentery were coapted by chromicised gut ligatures. The intestine (with the cylinder within it) was returned into the abdominal cavity, and the wound in the linea alba was united with interrupted silk sutures. After the experiment the animal was rather collapsed. 19th, 10 A.M.: This morning the dog awoke apparently quite well, and even ran about. The cocoa butter had evidently dissolved during the night, for some of it had escaped per anum. The wound looked healthy and smelt sweet. Redressed; no signs of peritonitis. Hypodermic injection of a grain of morphia and $\frac{1}{12}$th of a grain of atropia. The dog passed a small dark stool immediately after this injection. Slept well till 8 P.M. Given milk only to drink. 20th, 10 A.M.: Unfortunately during the night another dog, tied up in the same room, slipped its collar, and bit through the cord which secured the subject of the experiment. The dressings were found removed, and both the dogs had been running about the room. Now the animal lay on its side; the abdomen was tympanitic, and very painful to the touch. Respiration 60 per minute. A subcutaneous injection of a grain of morphia and one-eighty-fourth of a grain of atropia was at once given to relieve pain and promote the euthanasia. Death occurred at 11.45 A.M. Dr. D. van Duyse kindly made an autopsy forty-eight hours after death. There was general peritonitis. The intestinal sutures had given way, so that the interior of the intestine communicated with the peritoneal cavity by an aperture about equivalent to a third of the circumference of the gut; therefore the fæces escaped freely. It seemed quite probable that the ends of the gut, which had been united by the sutures, were torn apart, during the night previous to death, by the movements of the dog. On inspecting the interior of the gut, one point of the suture had pierced the mucous membrane and had ulcerated through it.

Experiment 2.—Performed on a bitch weighing 16·3 lb. July 21st, 3 P.M.: Subcutaneous injection of one grain and a half of morphia and one-fifty-sixth of a grain of atropine. 4 P.M.: Injection repeated and chloroform administered. An incision 3½ in. in length was made obliquely through the abdominal wall, parallel and internal to the position of the sigmoid flexure. Two inches of the intestine (the upper part of the rectum and the lower part of the sigmoid flexure), were removed. A triangular piece of the mesentery was first excised, and the cut edges were adapted with a chromicised catgut suture. The intestine was divided a little obliquely in order that after union the line of junction should be of rather greater length than the normal circumference of the gut. A little fæcal matter escaped into the peritoneal cavity during the insertion of the cylinder into the ends of the intestine, but it was sponged away carefully. Continuous and interrupted silk sutures, exceedingly numerous, were used, to maintain the peritoneal surfaces in accurate contact. The greater part of the abdominal wound was closed with a continuous catgut suture, the remainder, the lower part, was closed with interrupted sutures. The animal being collapsed after the operation half a drachm of brandy with water was injected subcutaneously. 22nd, 9 A.M.: The bitch looked very well; dressings displaced; fæces had passed naturally during the night; the tail, anus, and pudenda were covered with fæces and cocoa butter; incontinence of urine. The parts were thoroughly cleansed immediately and the dressings were reapplied. The wound appeared aseptic. Subcutaneous injection of half a grain of morphine with $\frac{1}{12}$th of a grain of atropine. The animal was found dead at 12.30 P.M. An autopsy demonstrated recent peritonitis of a local character. The intestinal sutures were all properly in place, but on forcing water with a syringe through the piece of gut, after its removal, there was a slight leakage noticed at the seat of resection. The sutures were numerous and very closely set, but apparently not close enough just at the point of attachment of the mesentery. This seems to be the part to which attention should be specially directed during the operation.

Experiment 3.—A black dog, weight 47·35 lb. July 22nd, 3 P.M.: The operation was performed under chloroform, four grains of morphia having been previously injected. A piece of the small intestine was withdrawn from the abdomen, through an incision three inches in length, made in the linea alba. A triangular piece of the mesentery was excised, and the edges adapted with a continuous chromicised suture, as in the last experiment. A cylinder of rather larger size than the calibre of the gut was selected, so that after the removal of about two inches of the intestine, the ends of the

gut were distended by the insertion of the cylinder. The ends of the gut were united by two rows of fine silk sutures, an inner row joining the edges of the peritoneum and muscularis, and an outer row of Lembert's sutures. These stitches were exceedingly closely set, and after the cylinder had melted they would lie still closer together, for the intestine would then contract to its normal calibre. The operation was concluded in the ordinary manner. 23rd, 10 A.M.: The dog looked quite well. It drank milk-and-water. It had tossed about a good deal during the night, and had displaced the dressings. Wound redressed; it appeared aseptic. Two grains of morphia injected subcutaneously. Vomiting immediately followed the injection. Somnolence. 12.30 P.M.: The dog was not asleep. It looked quite comfortable, lying on the abdomen, with the head resting between the fore-paws. Subcutaneous injection of a grain of morphia and one-sixty-fourth of a grain of atropine. No vomiting. Asleep. The dog died during the night. 24th: The autopsy was made by Dr. van Imschoot. The abdominal wound had closed. There was peritonitis, radiating from the seat of resection as a centre. A piece of omentum had adhered to the abdominal wall and had compressed the gut just below the resection. Great tension was thus put on the line of suture, which gave way, to a small extent, at the convexity. The remainder of the intestinal wound had united satisfactorily.

Remarks.—The employment of hollow or tubular cylinders undoubtedly facilitates the performance of intestinal resection, and therefore considerably shortens the operation. It appears a great advantage to make the section of the abdominal wall directly over the part of the intestine to be removed. The application of the sutures is clearly the most important point for consideration. Braided silk is to be preferred, for it will not kink. Continuous sutures can be applied more speedily than interrupted ones, but if one point of the continuous suture gives way, the entire suture loosens. Doubtless the last dog perished from a complication which could hardly be anticipated. And I believe the other dogs would have survived had they been kept in a state of perfect quiescence after the operations; a thing very difficult to accomplish with dogs, but very easy with mankind. Sir Spencer Wells advises that the legs of the dogs should be tied together after the experiments. This plan would certainly be more effectual than the use of morphia, unless the injections are very frequently repeated, for the action of this medicament on dogs is but transient. To Prof. Boddaert van Custem, of Ghent, I am exceedingly indebted for the kind assistance he rendered me in conducting these experiments.

Park-street, Park-lane, W.

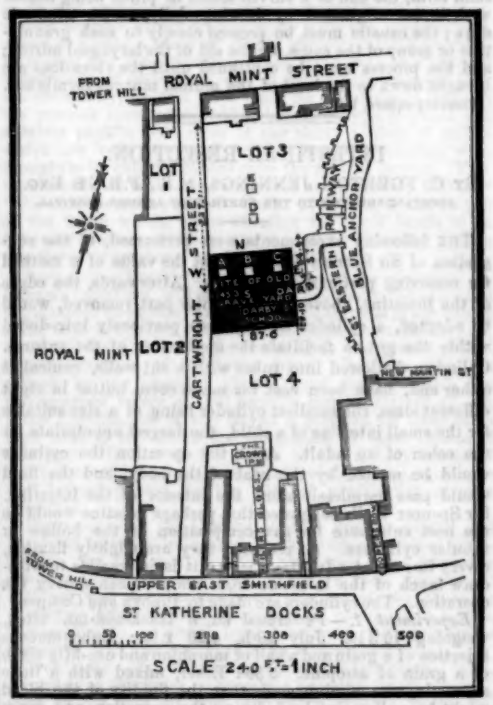
ON THE

"DISCOVERY OF ONE OF THE 'SEITES' SET APART (IN WHITECHAPEL) FOR A PEST-GROUND IN 1349, *TEMP.* EDWARD III."

By ROBT. FOWLER, M.D., M.R.C.P.E.,
PRESIDENT OF THE HUNTERIAN SOCIETY.

IN July last I was instructed by the Metropolitan Board of Works to examine a site of ground in Cartwright-street, Whitechapel, and to report as to whether there were any sanitary conditions preventing the utilisation of the ground for building purposes, and generally as to the condition of the human remains lying therein. The locality of the site is well indicated in the subjoined plan (Lot 3). This site in 1875 formed a portion of an area of about six acres or thereabouts, which comprised some courts and alleys of the most wretched description, inhabited by a population of some 3750 persons. The entire area, according to the then medical officer of health of the district, afforded upon an average 8·2 square yards, but in some of the courts only 3·4 square yards, to each person, the average number of persons to a house in the entire area being 8·3.

On July 27th, 1875, the medical officer of health made an official representation of the unhealthiness of this area to the Metropolitan Board of Works, and used this strong language in his report:—"I desire to represent to your board that by reason of the closeness, narrowness, and bad arrangement, as well as by reason of the bad condition, of the courts and houses within such area, diseases indicating a generally low condition of health amongst the population have been from time to time prevalent; and the death-rate of such population has been excessive, such excess being more than 50 per cent. above the ordinary rate of the district of Whitechapel, of which it forms a part. I further desire to represent that the evils connected with such houses, courts, and alleys, and the sanitary defects in such area, cannot be effectually remedied otherwise than by an improvement scheme for the rearrangement and reconstruction of the streets and houses within such area, or some of such streets and houses." The ground was cleared in 1881; and in consequence of the recent discovery of "human remains lying therein," I was consulted accordingly. Three trenches, about 6 ft. square each, and of varying depths, were dug for my inspection. These trenches are marked respectively A, B, and C on the accompanying plan. A was exceedingly shallow, and, so far as I could observe, contained no human remains whatever. B was about 9 ft. deep, and was literally teeming on all sides with human bones. The skeletons were packed closely,



one upon the other, from within 2 ft. of the surface to the very bottom of the trench. C was about 4 ft. deep, and also contained many human bones. Here and there were distinctly visible the remains of decayed (possibly coffin) wood around and between the skeletons. In this trench, about 2 ft. from the surface (having apparently dry ground intervening), was a patch of about half a yard square of somewhat humid, sodden, greasy earth. It is very possible this was simply the result of rain percolation; at all events, in no other part of the excavated ground were similar appearances to be found. I was thus firmly convinced that the spot had been an old burial-ground, and being desirous to establish—first, its extent, I had two trenches dug respectively 50 and 100 ft. to the north of the former trenches. In neither of these two northernmost trenches (respectively marked D and E on the plan), although each was of the depth of at least 11 ft., in fact down to the sand or gravel, were there found any human bones whatever. The excavated earth contained simply some few bones and horns of certain of the lower animals. It would therefore appear that the human remains were confined to so much only of the site of ground I had to examine as was comprised within about 120 ft. by 60 ft. of

[1] Read before the Hunterian Society on Wednesday, Oct. 8th, 1884.

its southernmost boundary. That this was but a portion of an old burial-ground, which extended further southwards under the present Darby-street, and certain cottages and schools on the south side of this street, is conclusively shown by a reference to Roque's map of Ancient London, dated 1746, wherein the whole plot delineated on my plan is called "Aldgate churchyard," and what is now Cartwright-street is named "Churchyard-alley." In the next place, it was very important for me to determine, if possible, the age of this burial-ground; or, in other words, the latest period when interments were made therein.

I deduced this from the following data:—(*a*) Omitting the slight exceptional condition existent in Trench C, the whole of the human remains I examined were in a dry, and, so far as exhalations are concerned, comparatively inert condition. They were simply old and dried bones. Dr. Navier, of Chalons, in 1775,[2] states that after twenty years' burial a body has been found "covered with flesh, and in a state of putrefaction." (*b*) Walker's work on graveyards was published in 1839. It was the work which led to the abolition of intramural burials, and to the establishment of the present cemeteries. This ground in Cartwright-street is in no way alluded to by Walker, although he speaks of Aldgate Churchyard in the High-street as "truly alarming,"[3] and of the burial-ground of St. Mary's, Whitechapel, as "extremely disgusting."[4] (*c*) No burial-ground has existed in Cartwright-street within living memory. The former owner built, in 1852, the houses upon this very ground, which was then called the "Ruins." He distinctly remembers human bones being turned up whilst the foundations were being put in. These foundations were laid at a depth of about 4 ft. from the true surface of the ground, and after 4 ft. of super-accumulated soil had been previously removed. As a matter of fact, in Trench B the foundations rest in some places immediately upon human skeletons, and in other places human bones are interspersed amongst the brickwork. The memory of this gentleman goes back to 1832, when the Asiatic cholera was exceedingly fatal amongst the inhabitants of the old houses built upon the adjoining land. He tells me that a nonagenarian friend of his died a few years ago, and that in repeated conversations this old man said he never remembered the place as a burial-ground, but had been told that an old "brewery" once stood there. (*d*) The former owner of these houses assures me that he never remembers any subsidence whatever of the walls of the houses during the thirty years of their existence. This assertion is fully confirmed by the present stable appearance of the schools on the south of Darby-street, and of the adjoining cottages which were part of the said owner's block. (*e*) In the second edition of Richard Horwood's Map of London, 1809, the whole adjoining land appears covered with houses, and the courts and alleys have the same names as when they were cleared in 1881 by the Metropolitan Board of Works. Cartwright-street appears on this map; but the burial-ground shown on Roque's map of 1746 is not named in Horwood's map; a blank space, however, not covered with houses, corresponds with the actual site. This was doubtless, even at that time, the "Ruins." No burial-ground existed in Cartwright-street at the commencement of this century. (*f*) John Noorthouck, in 1773,[5] wrote these words:—"At the south end of the Minories the street opens upon East Smithfield and Tower Hill; and between both these plots of ground once stood a religious foundation called by the several names of the New Abbey, the Abbey of Grace, and East Minster. This house was founded by King Edward III. upon the seite of the pest-ground, ... and called the Churchyard of the Holy Trinity; and upon the seite of that abbey is built the King's Victualling Office, which stands on the upper part of Little Tower Hill, near the end of King-street. This building contains ..... (*inter alia*) a brewhouse." This quotation fully corroborates the statement of the nonagenarian friend of the former owner that an old "brewery" once stood there. This fact of the concession of the religious house is also alluded to in similar language by Stow.[6] He says:—"This house (the monastery) at the late general suppression was valued at £546 10*d.* yearly. It was surrendered in the year 1539, the 30th of Henry VIII., since the which time, the said monastery being cleane pulled down by Sir Arthur Darcy Knight and other; of late time (in place thereof) is builded a large store house for victual, and convenient ovens are builded there for baking of bisket to serve his Majesties shippes. The grounds adjoining and belonging to the said abby are employed in building of small tenements." Furthermore:—(*g*) In the map by Ralph Aggas (1562) of "Ancient London in the early part of Queen Elizabeth," the Eastminster is shown to have been then located on this very spot, now covered by the Royal Mint,[7] with the ground behind and to the east of it. The Royal Mint, as it is to-day, was completed in 1811. Ground adjoining thereto is still called "Victualling Office-square." I am thus led irresistibly to the conclusion that the plot of ground I was instructed to examine in Cartwright-street was no other than one of the "seites" set apart for a pest-ground in 1349. Under this date, *temp.* Edward III., Noorthouck[8] says:—"A great plague which first appeared in the northern parts of Asia now spread over Europe. ..... At length it reached London, where the common cemeteries were not capacious enough to receive the vast number of bodies; so that several well-disposed persons were induced to purchase ground to supply that defect.....There was also another piece of ground purchased at the east end of the city, just without the wall, by one John Corey, a clergyman, for the same use; on which spot was afterwards in this reign [in 1359][9] founded the Abbey of St. Mary of Grace, for Cistertian monks; it is now covered by the Victualling-office and adjoining houses. It was asserted that not one in ten escaped this calamity, and that not less than 100,000 persons died in the whole." Other old writers[10] allude more or less in detail to the above facts. This horrible pestilence was no other than the so-called "black death," or "great mortality," which, probably originating in China, entered the western countries of Asia, and was brought to Constantinople from the northern coast of the Black Sea. It devastated Europe from 1347 to 1351. Hecker[11] assumes that Europe lost during the "black death" 25,000,000 inhabitants, a fourth part of the then estimated population of this continent. We know from Noorthouck,[12] and also from other authorities,[13] that the great plague in 1665, after devastating the western parts of London, became very violent in Stepney and Whitechapel. It is therefore just possible that the "seite," which had previously been used as a "pest-ground" when the plague visited London in 1349, and which site had also since then formed part of one of the religious houses, would be again utilised for the disposal of some of the dead amongst the plague-smitten of Whitechapel in 1665, and that during this year occurred the last interments of human bodies in this said ground. The mode of burial of the bodies indicates that the last interments were hurried, and not always conducted in a strictly orthodox way. Some of the skeletons, especially in Trench B, lie with the feet to the east, and others immediately below them with the feet to the west; and this is observed where the skeletons are apparently undisturbed far beneath the remaining foundations of the houses.

The result of the recommendations I made to the Metropolitan Board of Works is that the Board have decided not to build on the site of the graveyard. The "Disused Burial Grounds Act" passed this year will thus be complied with. The advice I gave the Board was not in the least influenced by any idea that these subjacent old dry bones had anything whatever to do with the necessity for clearing the ground. That the "low condition of health" and the "excessive mortality" of the inhabitants of this condemned area were due exclusively to the visible insanitary state of certain of the "houses, courts, and alleys," is pretty well proved by one great fact—viz., that all the houses built over and upon the burial-ground itself, with its substratum of decaying human remains, were of so healthy a character that in the first instance they were, for this reason alone, actually excluded from the improvement scheme; and the aid of the Home Secretary had to be invoked by the owner, on the plea of

[2] Walker's Gatherings from Graveyards, 1839, p. 99.
[3] Op. cit., p. 167. [4] Op. cit., p. 168.
[5] History of London, 1773, p. 665.
[6] Survey of London, 1633, p. 117 (Portsoken Ward).
[7] The identity of the site of the Abbey with that on which the Royal Mint now stands is conclusively shown by the very clear map facing p. 120 of Leftie's History of London, 1883.
[8] History of London, 1773, p. 70.
[9] The History of Edward III., by Joshua Barnes, B.D., Cambridge, 1688, p. 487.
[10] Stow, op. cit., p. 117; Barnes, op. cit., p. 487; Maitland's History of London, 1772, vol. i., p. 128, vol. ii., p. 1022.
[11] Epidemics of the Middle Ages, Sydenham Society's Edition, 1844, pp. 20–30. [12] Op. cit., p. 122.
[13] Hancock on Researches into the Law and Phenomena of Pestilence, &c., 1821, pp. 52–55.

deterioration of property, to compel the Board also to purchase this spot, or oasis of health, in the midst of its wretched insanitary surroundings.

Old Burlington-street, W.

FRACTURE OF THE BASE, FOLLOWED BY ENCEPHALITIS, ATAXIA, AND APHASIA; RECOVERY.

BY M. J. MOLONY, L.R.C.P., L.R.C.S. ED.,
ASSISTANT SURGEON, TREDEGAR IRONWORKS.

ON the night of April 11th, 1883, I was called to see W. W——, aged thirty-four, who had been found lying insensible in the street. He was ordinarily a strong healthy man. The following was the condition of affairs: Profound insensibility, pallor and coldness, copious hæmorrhage from left ear, slight epistaxis, pupils inactive and unequal, pulse intermittent, respiration slow and feeble. I noticed that there had been recent hæmatemesis. The blood vomited was of the dark peculiar colour which Sir Prescott Hewett describes when he speaks of fracture of the base, and which he attributes to the action of the gastric juice. Behind the left ear was an extensive contusion, best marked over the mastoid region, but also including the occipital and posterior cervical areas. There was no history as to how the injury had been received, nor has any clue been since discovered. The patient was of a rather bibulous and pugnacious disposition at times. The extent of the hæmorrhage from the ear, and the subsequent draining away of cerebro-spinal fluid, indicated beyond doubt a fracture of the base. How was the fracture caused? There was nothing whatever which pointed to either a fall or blow on the vault of the skull. The most careful examination revealed nothing. However, as we know that fracture by *contre-coup* may be produced without an external mark, the mere absence of injury at the vertex would of itself be of but little value. There was, however, the positive evidence of direct violence, applied if not actually at the base, at least in close proximity to it. I refer to the contusion at the mastoid and occipital regions.

No doubt Sir Prescott Hewett, in his article on Injuries of the Skull, lays some stress on the fact that discolouration may occur from the oozing of blood through the fracture, and the consequent infiltration of the cervical cellular tissue. But in this case the discolouration was most marked exactly in the region corresponding to the mastoid portion of the temporal bone, and presented all the appearance of a contusion in so pronounced a form as hardly to admit of a doubt as to its origin by direct violence. Moreover, the short period which had elapsed between the discovery of the man and my arrival—a quarter of an hour—would scarcely account for so extensive an infiltration. That the patient was found almost immediately after the injury there can be little doubt, as there were still many people in the streets. Thus I believe we have evidence of fracture of the base, caused in a manner by no means usual, or at least not commonly described. The treatment at this stage consisted in measures calculated to restore the heat of the body and to avert collapse. The application of warmth to the feet and sinapisms to the calves produced the desired effect. During the three or four days succeeding the injury the symptoms were such as one might expect to follow severe concussion, with probable contusion and laceration of brain substance. The pupils were still inactive and unequal; the pulse grew perceptibly stronger; the patient was semi-conscious and restless. He complained of headache and intolerance of light, and was, particularly towards evening, violent and delirious. Soon, however, he began to improve to the extent of recognising his attendants, and partially realising his position. The treatment now consisted in the application of cold to the head, purgation, and the administration of bromide of potassium. Morphia was also found useful in controlling the violent delirium. The case was now progressing favourably. The patient's faculties were gradually approaching the normal; the condition of the pupils was decidedly better; the delirium was less frequent and much less violent. About this time a remarkable symptom manifested itself, and pointed, I believe, to cerebellar mischief. This was a tendency to roll over repeatedly, and further, to roll continuously from side to side. This exercise was indulged in to an almost incredible extent, and was most distressing to the observer. Against any attempt to control the motion the patient protested most violently. Such symptoms are described by physiologists as occurring in animals whose crura cerebelli have been divided; and cases in which similar movements occurred in man have been recorded by MM. Seres and Belhomme, and by Dr. Paget. This phenomenon gradually disappeared, and on April 20th the patient, despite all efforts to prevent him, rose from his bed, dressed, and was with difficulty dissuaded from going out. Though less violent than hitherto, his condition seemed by no means favourable. His mind wandered; he was at times perfectly oblivious; his speech was jerky and incoherent; and his gait was distinctly ataxic. Between the 20th and 25th there was little or no alteration. On the 26th, and a few days afterwards, a distinctly new train of symptoms revealed themselves, and indicated beyond doubt inflammation of the brain: intolerable headache, rigors, quick pulse, pyrexia, intense photophobia; and subsequently strabismus, violent delirium, and convulsions. I applied ice to the head, purged freely, and gave aconite. Chloral and bromide were also useful. In the course of a few days the fever had subsided, the headache and other symptoms had considerably abated, and the condition of affairs was entirely satisfactory. Recovery now progressed steadily; and on May 5th the patient was allowed to sit up, but without leaving his room. He was now very good-humoured and tractable, and laughed heartily on hearing the tale of his previous performances. His condition at this period and for some time after, looked at from a physiological point of view, was of the most interesting character. The following symptoms were more or less constant: Headache, deafness, tinnitus aurium, strabismus, double vision, ataxia, jerky articulation, loss of memory, and aphasia. The strabismus, which was external and accompanied by other signs of paralysis of the third nerve, including ptosis and dilated pupil, disappeared in the course of a few weeks. The ataxia was well marked. The patient was unable to stand erect with his eyes closed. The movements of both upper and lower extremities were clumsy; the "muscular sense" was impaired. Westphal's symptom was also present, the "patellar reflex" being much diminished. The above motor derangement depended presumably on some cerebellar trouble, the earlier effects of which had already manifested themselves in the manner previously described. Loss of memory was a striking feature. While the patient's recollection of remote events was good, he utterly failed to remember recent ones. He called to mind without effort incidents of the Franco-Prussian War, yet he was unable to tell where he had been or what he had been doing three weeks before his illness. His memory for names of places seemed a complete blank. However, as he suffered from aphasia, it was of course a matter of great difficulty to decide when his failure arose from loss of memory pure and simple, and when it arose from aphasia, amnesic or otherwise. The aphasia was of a pronounced and complicated nature. I believe I was able to distinguish the amnesic, agraphic, and ataxic varieties, although to draw a hard-and-fast line where one variety began and another ended I soon discovered to be a hopeless task. Thus, for instance, on being asked his name he was unable to pronounce or write it. On hearing it he recognised it at once, and repeated, but failed to write, it. Then, again, on other matters he expressed himself correctly on paper where words of mouth absolutely failed him. On being asked his age he could not tell, but on being handed a pencil and paper he readily expressed it in figures. When he spoke for a little time his inability to coördinate the complex movements of articulation (ataxic aphasia) made itself apparent. During this latter stage a mild mercurial course, blistering, and iodide of potassium seemed beneficial.

As time wore on the above symptoms steadily disappeared, and in six months from the time I first saw him my patient was enjoying excellent health, in full possession of all his faculties and quite capable of attending to business. Deafness of the ear, from which the cerebro-spinal discharge occurred, was persistent.

The case, I believe, presents the following points of interest:—The somewhat unusual manner in which the fracture must have been produced; the distinct evidence of cerebellar mischief, the encephalitis supervening, as I ought to have mentioned, synchronously with the suppression of the cerebro-spinal discharge, the ataxic phenomena obviously depending on injury to the cerebellum; and, lastly, the loss of memory and aphasia.

Tredegar.

THE EFFECT OF COCAINE UPON THE EYE.

BY LUCIEN HOWE, M.R.C.S.,
PROFESSOR OF OPHTHALMOLOGY IN THE UNIVERSITY OF BUFFALO, NEW YORK.

THE readers of English medical journals[1] may remember that about ten years ago attention was called to the leaves of the erythroxylon coca, and considerable interest manifested in their real or supposed effects. Of late notice has again been attracted to the plant by a brief communication made by Dr. Carl Koller of Vienna at the last meeting of the Heidelberg Ophthalmological Congress. From the number of those who are at work in the same direction it is probable that the literature of the subject will grow rapidly, and it therefore seems to me worth while to record briefly some of the conclusions arrived at, especially those based on experiments with animals. The practical bearing of the matter will be apparent when it is stated, without any fear of exaggeration, that the proper use of cocaine, before operations involving the conjunctiva, cornea, or iris, lessens the pain of the patient, and thus facilitates the manipulations of the operator, without producing any irritation or serious inconvenience. These deductions are drawn from the experiments mentioned, and upon an observation of the effect of cocaine in thirty-eight cases in the clinics of Professors Schoeler and Schweigger. To these gentlemen acknowledgments are due for the clinical material placed at my disposal. In a study of the subject we are led to consider the degree of anæsthesia produced. It is by no means easy to estimate this from the varying statements of patients. In order to obtain some measure, therefore, at least approximately, of the amount of pain in one eye as compared with another, it seemed possible to make use of the physiological fact that every irritant to a sensitive nerve is accompanied by a corresponding increase of blood pressure. Accordingly, by means of a mercurial kymograph, in the laboratory of Professor Zuntz, I have noted the effect upon the blood pressure when the same irritant was applied successively to each eye, and have made 124 such observations in various ways upon several rabbits. There were 104 of these tests, or 52 in pairs, which could be fairly compared; and, in addition, I have used occasionally guinea-pigs and cats when a verification of the experiment was deemed essential. The conclusions thus far may be briefly stated as follows:—

I. The effect of the same irritant upon the blood pressure, other circumstances being the same, is invariably less in the eye with cocaine than in the normal eye.

II. The degree of difference varies (1) with the amount of the dose, (2) with the time when the dose is given, and (3) with the part of the eye which is irritated.

1. *As to the amount.*—Two drops of a ·02 per cent. solution is sufficient to produce a noticeable difference in the size of the pupil, but at least twice that quantity is the minimum which will effect the sensibility materially. If a 2 per cent. solution be used, the effect at the end of about fifteen minutes does not differ materially from that which follows the use of the same quantity of a 4 or 5 per cent. solution. Certainly, the intensity of the effect in the latter case is not twice as great as in the first.

2. *As to the time required for its action.*—From two to six minutes after a full dose some anæsthesia of the conjunctiva appears. The maximum effect is reached in about fifteen minutes, and in thirty or forty minutes commences to subside. When the cocaine has been once applied, subsequent apolications apparently act with more rapidity than at first. When the dose is sufficient to produce a well-marked anæsthetic effect, this precedes the dilatation of the pupil. The latter, however, continues for some hours after the former has disappeared.

3. *As to the different parts of the eye.*—The anæsthesia is shown, first, in the conjunctiva and cornea, afterwards in the iris. Its degree is also much greater in these external portions than in the iris. It reaches the latter by passing into the anterior chamber, as can be shown by drawing out from an eye already treated with cocaine the aqueous humour, and dropping that into a normal eye. If a 2 per cent. solution be injected into the anterior chamber, comparatively litt e irritation is produced, but the degree of anæsthesia, especially in the iris, is not apparently greater than when the same quantity is dropped upon the conjunctiva.

Second in importance to the anæsthetic effect of cocaine is its action as a narcotic. In many of the acute inflammations of the cornea or iris, in abrasions of the conjunctiva from foreign bodies, and in the pain following the use of silver nitrate or cupric sulphate, its influence in this respect is very decided. In the third place, it should be remarked that it acts as a mydriatic. Reference has already been made to this fact. It must be conceded, however, that atropine possesses this quality to a greater extent. Intimately connected with the mydriasis is the paralysis of accommodation. The comparatively slight degree of this, together with the short duration of the mydriasis, is of evident advantage in ophthalmoscopic examinations. Fourthly, the mydriasis is accompanied by a perceptible increase of intraocular tension, as shown by the double manometer of Graser. Fifthly, a slight anæmia of the conjunctiva and enlargement of the palpebral fissure are noticeable within five minutes after the use of a 2 per cent. solution. Sixthly, it does not retard the healing of wounds. Seventhly, watery solutions so complete as to hold no particles in suspension do not irritate the eye. Although not relating immediately to its effects upon the eye, it may be worthy to note, eighthly, that stronger solutions, those of about 5 per cent. and upwards, delay the putrefactive changes in an extract of meat. Ninthly, when cocaine enters the circulation rapidly, the kymograph shows an immediate lessening of the blood pressure, the animal dying with paralytic condition of the heart as one of the chief symptoms.

It is probable that future experience may modify some of the conclusions thus far reached. In the first trials of an apparently useful drug the judgment is apt to be warped by ardent enthusiasm. A fair consideration, however, of facts already well established seems to justify the belief that cocaine is destined to rank as one of the most valuable agents in ophthalmic surgery.

[1] Vide THE LANCET, 1876, vol. i., pp. 631, 664; Brit. Med. Jour., 1874, vol. i. pp. 234, 272, 305, 414; 1876, vol. i. pp. 824, 831, 750; 1871, vol. i. p. 291; Med. Times and Gazette, 1871, vol. ii. p. 407; Edin. Med. Jour., 1873, pp. 322, 341.

BRIEF NOTES OF

PAINLESS EYE SURGERY BY THE USE OF COCAINE.

BY C. BADER,
CONSULTING OPHTHALMIC SURGEON TO GUY'S HOSPITAL.

CASE 1.—Lady, aged twenty-two. Burnt both cornea with acetic acid; exhibited extreme intolerance of light and suffered great pain. An ointment composed of chrisma (one ounce) with 2 per cent. of muriate of cocaine was ordered. Immediate relief and rapid recovery followed.

CASES 2, 3.—Aged sixty and sixty-five respectively. Slitting of lower tear puncta and canaliculi. Five, three, and one minute before operating a drop of a 2 per cent. solution of cocaine was applied to the inner surface of the lower eyelids. The patients did not complain during the operation.

CASES 4, 5, 6.—These cases were young ladies with convergent strabismus. The 4 per cent. solution of cocaine was used in one case only to one eye, to note the difference as to pain, which was most striking.

CASE 7.—Tumour removed from upper eyelid. A 2 per cent. solution of cocaine was applied five, three, and two minutes before the operation. No pain was complained of when making the incision, but the patient experienced some pain while I was crushing the tumour.

CASE 8.—Double iridectomy. A 4 per cent. cocaine solution was applied four times in six minutes. No pain whatever at the corneal incision, but the patient felt some pain while the iris was excised.

CASES 9, 10, 11.—Aged forty-five, seventy-five, and eighty respectively. Extraction of cataract by corneal flap without iridectomy; left eye in all. Large hard cataract in the two latter cases. One week after operation the incision was healed; central clear pupil. One case will illustrate the proceedings adopted in the others. I arrived at the patient's house at 3 P.M., and immediately put a drop of a 4 per cent. solution of muriate of cocaine on the inner surface of the left lower eyelid three times in six minutes. At the seventh minute no sensation was experienced by the patient when

touching the cornea. The operation was performed in the old-fashioned way, no speculum or fixing forceps being used; central clear pupil; both eyes were bound.

The patient stated that he felt no pain, and seemed much pleased and astonished.

The above cases occurred from October 16th to Nov. 10th. The muriate of cocaine was prepared by Messrs. Allen and Hanburys, 37, Lombard-street, E.C. A fair dilatation of the pupil indicates a more profound insensibility. I believe the future of cocaine to equal that of eserine. In cases of intolerance of light it acts like magic. Its action on the sensitive nerves of the iris must render it valuable to the physiologist. Dr. Koller of Vienna first brought the cocaine before the Ophthalmological Congress at Heidelberg on September 15th, 1884.

London.

COCAINE AS A LOCAL ANÆSTHETIC IN INTRA-LARYNGEAL OPERATIONS.

BY FELIX SEMON, M.D., M.R.C.P. LOND.,
ASSISTANT-PHYSICIAN IN CHARGE OF THE THROAT DEPARTMENT OF ST. THOMAS'S HOSPITAL.

COCAINE has lately been highly recommended as a local anæsthetic in operations upon the eye and throat. Having on my first trial of this new remedy for operations upon the larynx met with very signal success, I think it my duty to record the fact at once for the benefit of others.

I have under my care at the present time a lady with the largest papillomata of the larynx I have ever seen in an adult. The prolonged interference with respiration has so lowered the patient's vitality that on each of the seven occasions on which I have removed masses of the growth by forceps, the mere introduction of the instrument has caused alarming shock. Recently I painted the interior of her larynx with a 20 per cent. solution of muriate of cocaine once, and after waiting five minutes I was able to introduce the forceps four times and remove each time considerable portions of the tumours without the patient experiencing any pain at the moment or subsequent shock. She described the sensations caused by the cocaine as, first, a slight feeling of constriction, followed by a sensation of burning, which quickly passed away.

Welbeck-street.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

"Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare."—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

CASE OF HYDROPHOBIA.

(Under the care of Dr. POORE.)

FOR the notes of the following case we are largely indebted to Mr. J. H. Brock, house-physician.

Mary Anne R——, aged thirty, was admitted on Sept. 8th, 1884. It was stated that about a year before the patient had been bitten by a dog on the index and middle fingers of the left hand. About six months later the left index finger had also been bitten by a cat. These wounds healed without difficulty, and soon ceased to attract the patient's attention. It was further alleged that the dog subsequently bit a boy on the shoulder and was destroyed, but there was no distinct evidence that the animal suffered from rabies. Similar evidence was wanting in respect of the cat. The patient and her husband had both been hop-picking and had been indulging freely in drink, and there was a history that on or about the 4th of September the patient was frightened by a dog jumping upon her, but this animal inflicted no bite. On that day (the 4th) the patient complained of some pain in the jaws, and found that they were stiff. On the 6th there was some difficulty in swallowing, and this increased on the 7th, especially when attempts were made to swallow water, and the patient became at times violent and delirious. On the 8th she was seen by Mr. Ingledew, of Woolwich, who, recognising the nature of the case, transferred her to the hospital.

When first seen by Dr. Poore at 4 P.M., about an hour after admission, the patient was sitting up in bed. The face was red and somewhat suffused, and there were superficial abrasions on the cheeks. The colour of the face was partly attributable to exposure to the sun, but the abrasions were caused by the patient trying to allay the irritation of the face by rubbing it with her hands. The expression exhibited considerable excitement mingled with terror, strikingly like that of a hunted animal. The eyes were wide open, and the pupils of medium size and equal. The patient answered questions and appeared sensible, excepting for the fact that she talked almost incessantly, and seemed possessed at times by vague and unreasoning terror. She manifested the greatest unwillingness to make even an attempt to swallow, and positively refused to take a drop of croton oil on butter which was offered to her. On trying to swallow a teaspoonful of milk, which she carried hurriedly and nervously to her mouth, she was seized with a violent spasm of the faucial muscles, which was accompanied by great distress. Whenever the attempt was made to swallow, the same phenomena were observed. Bowels constipated. Tongue somewhat coated. No paralysis or spasm of the limbs or trunk. Temperature 101·4°; respiration 28; pulse 150. It was noted that the knee-jerk was absent in both legs, but that the superficial reflexes were normal.

The patient continued to get more excited and delirious. Her language was extremely obscene, and she constantly stated that she saw various objects, dogs, cats, and human beings, which were all provocative of fear. Towards night she became violent and quarrelsome. At 1 A.M. on the morning of the 9th she asked for water to wash, but at the sight of it she became very excited, and on dipping her hands into it she was seized with a pharyngeal spasm. She gradually got weaker, and at 5.30 A.M. she complained of pain in the legs which prevented her from standing. During the night the urine was passed into the bed. It was noted that while the pulse steadily increased in frequency, the rate of respiration decreased, and at 10 A.M. the temperature was 102·4°, the respiration was only 12, while the pulse was too rapid to be counted. The suffusion of the face steadily increased. At 12.10 P.M. on the 9th the patient had a severe pharyngeal and respiratory spasm, fell back on the pillow and died.

The treatment consisted in the maintenance of surroundings as absolutely quiet as was compatible with the due care of the patient. In addition to this an enema containing sixty grains of bromide of potassium was administered soon after admission, and three hypodermic injections, each of one-third of a grain of morphia, were given at intervals. These had the effect of producing quiet, and affording a little sleep.

The post-mortem examination was made within two hours of death. No change was detectable by the naked eye with the exception of general venous engorgement due to the impaired respiratory power and the mode of death. The necropsy was made as soon as possible in order that "cultivation experiments" might be carried on. It is known that Pasteur has not as yet succeeded in detecting any micro-organism having a definite relationship with hydrophobia. Mr. J. Lister, the assistant of Mr. Watson Cheyne in the biological laboratory of the Health Exhibition, attended the post-mortem, bringing with him a supply of sterilised tubes filled with gelatinised meat infusion. These tubes were inoculated with minute portions of the medulla, the salivary glands, and kidney. Some "growth" has taken place in several of these tubes, but as to the nature of this growth (whether specific or otherwise) no conclusions have as yet been arrived at.

LIVERPOOL NORTHERN HOSPITAL.

EPITHELIOMA OF PENIS; COMPLETE AMPUTATION, WITH FORMATION OF PERINEAL URETHRA; RECOVERY; REMARKS.

(Under the care of Mr. CHAUNCY PUZEY.)

J. H——, aged seventy, was admitted on May 2nd, 1884, suffering from epithelioma of the penis, said to be of only six months' duration. A considerable portion of the glans penis had disappeared, and the body of the organ was evidently involved in the disease, suspicious induration extending as far as the scrotum. The patient's general

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condition was not very promising; his vessels were very atheromatous, his circulation feeble, and his face injected and dusky in hue; but as he was suffering much from pain and irritation, and as the condition of the inguinal glands was fairly satisfactory, free removal was recommended to and accepted by the patient.

As the man was subject to bronchitis chloroform was given in preference to ether. Two curved incisions were made, one on each side of the penis, from the pubis into the scrotum, dividing the latter freely. The knife was passed round the body of the penis to completely divide its facial envelopes, which could then be freely detached in a backward direction by the finger; the suspensory ligament was divided with scissors, thus freeing the organ from its attachment to the arch of the pubis but leaving the crura undisturbed. The penis was then pulled forward and its deepest exposed part transfixed with a stout curved needle in handle, and beneath this a whipcord ligature was passed and temporarily tightened; the organ was then cut through bloodlessly, the vessels tied, and the tenaculum and ligature removed. The remaining portion of the urethra was detached from its penile attachments, and the perineum having been transfixed with a scalpel was brought through, and, its under surface having been slit up for about half an inch, was stitched to the perineal skin with several silver sutures. A small drainage-tube was passed into the perineal wound (in front of the newly located urethra) and brought out below the pubes, and the scrotal wound was completely closed with metal sutures. The bladder was drained continuously by a perineal catheter to which was attached a piece of tubing long enough to hang over the bed, and into a porringer containing carbolic solution.

There is little to record regarding the after-progress of the case. The patient suffered very little from the effects of the operation, but an enlarged and tender condition of the prostate gland necessitated the removal of the catheter after a few days, and he suffered slightly from cystitis. However, he made a good recovery and left the hospital on June 19th. The wound was then soundly healed, no trace of the penis being left except a slightly depressed cicatrix. He had complete control over his bladder and there was no difficulty in keeping the perineal meatus open.

Remarks by Mr. PUZEY.—I have not seen this patient since he returned to his home in Wales, therefore am unable to report as to his present condition. But last May I had the satisfaction of seeing a patient upon whom I performed a similar operation nearly two years and a half previously, and who is now in perfect health and comfort, in excellent spirits and quite free from any trace of disease.[1] In his case the disease was more extensive, and necessitated the removal of about half the scrotum; the patient was exhausted by loss of blood, by profuse fetid discharge, and by the effects of prolonged retention of urine with enormous distension of bladder, and I certainly did not anticipate such a successful result. In that case the scrotum was divided completely through the line of the raphé, and the incision continued along the perineum; but in that just recorded, the scrotal structures being very lax and the wound therefore distensible, it was found possible to complete the operation in the manner described, the result being less hæmorrhage, probably less shock, and less subsequent call upon the healing powers of nature.

THE NATIVE HOSPITAL, BUTTERWORTH, TRANSKIE, SOUTH AFRICA.

CASE OF A MORPHIA HABITUÉ, SAID TO HAVE TAKEN DAILY FORTY GRAINS OF MORPHIA HYPODERMICALLY; TEMPORARY ABSTENTION; RELAPSE; DEATH.

(Under the care of Mr. J. H. NANKIVELL.)

W. M——, an officer in the Colonial Commissariat Department, aged thirty-eight. About five years ago, when living at the Diamond Fields, he had flying attacks of articular rheumatism followed by severe pain in the left thigh bone about two inches and a half above the knee. Medical treatment proved of no avail and the bone was trephined for supposed abscess without any good result following. After leaving hospital he suffered such agony that on more than one occasion, according to his own account, he drank two bottles of raw brandy before noon. Having been at one time for nearly ten days without sleep he went to a medical man, who gave him a morphia injection. From this time he used morphia subcutaneously in gradually increasing doses, and he stated that during the past eight months his daily allowance has been 480 minims, 12 minims containing 1 grain of the hydrochlorate, or 40 grains a day. Thirty-five minims is the smallest quantity which has at present the desired effect on him. He would sometimes go for nearly a fortnight without a motion of the bowels, as he was much troubled with piles, and then the hard fæces gave him great pain. Shortly before admission he had taken to alcohol drinking, and had at the same time been deprived by accident of his stock of morphia. Mr. Nankivell refused him his favourite drug, put a stop on his supply of alcohol, and admitted him into hospital. For the two days before admission his stomach had rejected every form of nourishment.

On admission, on October 19th, 1882, he was very thin, of a sunken, sallow, muddy complexion, and in a state of great nervous debility and physical exhaustion. Upon the front of the arms, forearms, thighs, and legs were cicatricial spots, as large as the palm of the hand, formed by the constant insertion of the needle. The bowels had not been open for five days. He cried and threatened alternately, and begged constantly for sleep and relief from a cold sensation across the chest. Pulse 54; temperature 98°. No albumen in the urine. Ordered a mixture of subnitrate of bismuth, acacia powder, and spirit of chloroform—a dose just before taking food. During the afternoon he retained two cups of beef-tea and an ounce of brandy, but vomited frequently, bringing up bile, mucus, and a little blood. At night he had thirty grains of chloral hydrate, ten drops of solution of morphia hydrochlorate in chloroform water.

20th.—No sleep all night; very restless and troublesome all day. To have no sleeping draught unless he eats well. Vomited four times, each time bringing up a little blood. Retained a little beef-tea and milk. Bowels opened freely; Stools hard, black, and round, causing in their passage great pain and a good deal of bleeding. Towards night he got into a most abject and pitiable state. At 7 P.M. the draught was repeated.

21st.—About two hours' sleep towards morning; very noisy and troublesome all night. He was told that unless he ate well he should have no more medicine. He took nourishment every hour during the day and vomited twice only. One motion of the bowels, the fæces returning to their natural colour. Ointment of galls and opium for the piles, which bled freely. At 7 P.M. sleeping draught repeated.

22nd.—A good night's rest. From this time he recovered rapidly, eating well and sleeping fairly with the help of opiates, which were gradually weakened. He left hospital and returned to his work on the 26th, a watch being kept on him that he obtained no more morphia.

Possession was previously obtained of his apparatus, which included four new syringes and a box of needles. On Nov. 24th he handed over four ounces of hypodermic solution of morphia and four ounces of hydrochlorate of morphia, which he had ordered six weeks previously. Four months later he gave way first to drink and then to morphia, from the effects of which he died last year in hospital at Grahamstown.

[1] The case was reported in THE LANCET of July 8th, 1882.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Fatal Hæmoptysis from Bronchial Ulceration.—Ulcerative Endocarditis.—Carcinoma of Stomach in a Girl.—Uterine and Ovarian Disease in Animals.—Hydronephrosis removed by Lateral Abdominal Section.—Bones of Tabes Dorsalis.

AN ordinary meeting of this Society was held on Tuesday last, Mr. J. Whitaker Hulke, F.R.S., President, in the chair. The attendance was numerous.

Dr. PERCY KIDD showed specimens from a case of Fatal Hæmoptysis due to Bronchial Ulceration. The patient was a girl aged fifteen, who had died suddenly from profuse hæmoptysis in the waiting-room of the Hospital for Consumption, Brompton, while under the care of Dr. Mitchell Bruce as an out-patient. The post-mortem examination showed that the air-passages contained blood throughout. Both lungs were marked by patches of inhaled blood, and were studded with small hard nodules. The left apex contained a large cavity, and there were a few small cavities

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in the lower part of the upper lobe; the small bronchi were generally thickened and slightly dilated. A large firm post-mortem clot filled the main bronchus and the secondary bronchi on the left side. The bronchus leading to the upper lobe had been perforated about half an inch beyond the origin from the main bronchus by ulceration, which also implicated the main bronchus. The ulceration of the bronchus had extended into a secondary branch of the pulmonary artery, causing a perforation as large as a hempseed. A little below and internal to this point there was another perforation of the bronchial wall leading into an irregular space containing a crumbling cretaceous gland. The bronchial ulceration was soft and ragged, and had some of the ordinary characters of scrofulous or tubercular ulceration. The other lung contained no cavities. The bronchial glands were generally cretaceous and slightly enlarged. The stomach contained two pints of blood, but was healthy. The intestines showed slight scrofulous ulceration, the mesenteric glands were enlarged and calcareous, and the liver was slightly amyloid; the other organs were normal. The hæmorrhage in this case was clearly due to perforation of the pulmonary artery by the bronchial ulceration, which in its turn was set up by the presence of an enlarged calcareous gland. The case was an extremely rare one.

Dr. CARRINGTON read a paper on a remarkable case of Ulcerative Endocarditis. The patient was a male, aged twenty-three, who was admitted into Guy's Hospital on April 30th, suffering from acute rheumatism. He had been ill for the previous three months. There was a blowing systolic murmur which suddenly became intensified and harsh on June 11th. The urine, though free from albumen, became and continued to be albuminous and bloody on May 30th, and the temperature ranged between 100° and 103°. At the autopsy there was extreme ulcerative affection of the mitral valve with rupture of many of the chordæ tendineæ. The spleen weighed twelve ounces and a half, contained infarcts, one of which was sloughing. The kidneys were in a condition of acute nephritis and contained many infarcts. Pushing inwards the posterior wall of the stomach at the cardiac end was a hemispherical mass two inches and a half in diameter. This was found to be a false aneurysm, into which the splenic artery opened by its entire calibre. The aneurysm was filled by firm laminated clot. An ulcer without a trace of induration, having for its floor the firm aneurysmal clot occupied the summit of the mass. Recent clot was found round the circumference of the ulcer between the gastric wall and the aneurysmal contents. The stomach contained fifteen ounces of clot. A smaller superficial ulcer was found half an inch off, but not communicating with the aneurysm. In the duodenum a small clot the size of a horsebean was discovered between the mucous and muscular coats bulging the mucous membrane, which was not ulcerated. The case was interesting, for ulceration of the stomach in cardiac disease is rare; and although this fact was undoubtedly a strong argument against the embolic theory of gastric ulcer, the present case might illustrate one mode of formation of gastric ulcer. The three stages seemed to be indicated by the condition of the duodenum without ulceration, and the superficial and deep ulcers in the stomach. Probably the pressure of the effused blood caused local anæmia and allowed of solution of the gastric tissues. Another point of clinical interest which had been dwelt upon by Dr. Goodhart, was that an aneurysm although seemingly cured might bleed between the wall of the sac and its contents. The sudden increase in intensity of the cardiac bruit had enabled a surmise of rupture of the chordæ tendineæ to be made.

Dr. NORMAN MOORE read notes of a case of Carcinoma of the Stomach in a child. The patient was a girl, aged thirteen years, who was under his care in St. Bartholomew's Hospital during March and April, 1884. She was brought to the hospital in a condition of extreme anæmia, with puffiness of the face and œdema of the legs and arms. She was so short of breath that she could scarcely walk. The heart's action was feeble, and there was a loud systolic murmur, best heard at the left base, and accompanied at the apex by a well-marked systolic thrill. There was no albuminuria, and the chief symptom was the recurrence of cardiac distress. She never vomited blood, but two days before death complained of pain in the abdomen, and had several attacks of vomiting. An enlargement of the spleen could be felt. She died five weeks after admission. The autopsy revealed a new growth at the cardiac end of the stomach, close to the œsophagus. The mass measured about three inches in diameter. The peripheral parts arose from the mucous membrane, and were of the same colour, but the central parts were ragged, dark-coloured, and very dense. On section it was seen to be red, with paler stripes. The outer part of the growth was adherent to the liver, but did not penetrate it. There were signs of slight recent peritonitis, apparently due to a tear at the periphery of the growth. No glands and no other organ were infiltrated. There was a very old, perhaps congenital, dislocation of the right hip-joint. The heart was greatly dilated, and contained several adherent, softened, ante-mortem clots, and there was an adherent thrombus in the left jugular vein. This was the earliest example of cancer of the stomach (determined microscopically) on record. It was less dense than such new growths in the gastric wall usually are, but it agreed with them in the absence of secondary deposits. The microscopic characters of the growth were those of a carcinoma with somewhat wide trabeculæ and extensive mucoid degeneration, with hæmorrhages into several parts of the growth. Three distinct stages were visible in the growth. In the least degenerate numerous cells of an epithelial type were collected in large alveoli. In another advanced mucoid changes were observable in the epithelial cells, and in some cells the nuclei had disappeared. In the most degenerate parts almost all the nuclei had disappeared, leaving a mass of mucoid material intersected by traces of the cell boundaries. Having heard from the child's mother that its paternal grandmother had died of cancer at the age of fifty-three, Dr. Moore wrote to Dr. E. D. Wallis, of Leiston, in Suffolk, who informed him that he had made a post-mortem examination on the grandmother in May, 1878, and found a tumour which had obstructed the descending colon. There were no secondary deposits. This growth was probably a true carcinoma, and the early age at which carcinoma of the stomach occurred in his case may be regarded as an example of the well-established law as to the tendency of hereditary peculiarities to appear at an earlier age in the progeny than in the ancestor.—Mr. HENRY MORRIS spoke of a fatal case of cancer of the breast in a woman, whose mother died of cancer many years after her.—Mr. FREDERICK EVE said that the cells in adenoid cancer were generally cylindrical, whilst the cells of Dr. Moore's case were spheroidal.—Mr. HARRISON CRIPPS disbelieved in the hereditary theory of cancer. — Mr. JONATHAN HUTCHINSON said that in his experience whenever cancer occurred at unusually early periods he had found the strongest hereditary history of cancer. In two cases of carcinoma of the testis, occurring in children under the age of one year, he had obtained the strongest evidence of cancer in the family.—Mr. W. HULKE spoke of a case in a lady aged seventy-four, whose elder sister also became cancerous still later in life, whilst their parents died of cancer in early life.—Mr. BUTLIN said that as the grandmother was the only relative known of, there but a slender history of cancer in Dr. Moore's case.—Dr. NORMAN MOORE thought it was well established that some varieties of structure were transmitted to the offspring at an earlier age.

Mr. J. BLAND SUTTON read a paper on Uterine and Ovarian Disease in Amphibia, Aves, and Mammalia. He exhibited a series of specimens which served to show that flexions of the uterus are not confined to the human race. The first was an example of retroflexion in a macaque monkey; the second specimen showed acute anteflexion in a bonnet monkey; the third, acute lateral flexion of the uterus to the right side, also in a monkey. In the last two specimens, the pelvis was considerably distorted, as a result of rickets. Two other specimens, illustrating anteflexion of the uterus, were taken from deer: one from a hyomoschus, which had, a short time previous to its death, given birth to a young one; the other from a molucca deer. The pressure of the anteflexed fundus in the last case had caused atrophy of the anterior wall of the uterus. The uterus of a kangaroo was shown, in which both Fallopian tubes had become greatly distended on account of the accumulation of caseous material in their interior, due to some obstruction of their openings into the uterine cavity. Some of the contents of the tubes had probably leaked into the peritoneal cavity, and had given rise to fatal peritonitis. Mr. Sutton stated that ovarian disease was not uncommon in animals born in confinement, but seemed to be very rare in "wild animals." He observed that it had long been shown that some cysts in the broad ligament frequently arose from abnormal distension of the tubules forming the "organ of Rosenmüller" (the parovarium). He had made an investigation with a view to determine how far the notion of cystic dilatation of tubules

having no functions held good. The results, briefly stated, were that male toads possess the remains of Müller's ducts in a well-marked degree; and it was no uncommon thing to find these ducts, which in the male toad had no function, dilated in their lower third into cysts, some very small indeed, but others of considerable size, and affording indisputable testimony to the origin of cysts from pre-existing ducts. About 250 frogs and toads were examined to test the point, and about ten well-marked examples of the cyst were found; they were, as a rule, arranged symmetrically. In birds, as in frogs and toads, upon the Müllerian ducts devolved the duty of conveying the ova from the abdomen to the outer world. In the embryo chick there were normally two oviducts; but the left duct alone persisted, whilst the right one usually disappeared, though now and then a small rudiment of the lower end, from a quarter of an inch to an inch long, remained attached to the cloaca. It might become the seat of cystic change, and in some cases assumed considerable proportions. The occurrence of these cysts was by no means unfrequent; and their presence was injurious, for a cyst might become detached, and set up fatal peritonitis. A curious fact, first pointed out by Hunter, was occasionally noticed; a hen bird would lay aside the sober plumage of her sex, and take on that of the cock. This fact had been attested by several naturalists of eminence; and Mr. Sutton exhibited a drawing of a hen golden pheasant now living in the Zoological Society's Gardens. Two years ago she assumed the resplendent dress of the male bird, the only difference being that there was no white rim to the pupil, and no spurs. She lived quite happily with her mate, and they did not fight. This singular change was always associated with disease of the ovaries or the oviduct. In mares, cysts in the mesosalpinx were so frequently found that in fifty old mares, taken at random, two-thirds possessed cystic ovaries, the cysts varying in size from a grape to an orange, and in number from three or four to a dozen. Careful examination of these cysts had convinced him that they arose by dilatation of the tubules of the parovarium, brought about by the increased blood-supply to the ovary in old age, due to the dilatation of the ovarian veins, much as was seen in the prostate of men advanced in life. Among other animals, he had met with cystic ovaries in a tiger that was born in this country and lived in confinement for twelve years. The cysts were small, numerous, and pedunculated, resembling the incipient cysts so frequently seen about the ovary and Fallopian tubes in virgins. Cystic tumours were also shown from a cat, a goat, and a tree-porcupine. He had brought these facts before the Society, not as mere curiosities of disease occurring in animals, nor as interesting in that they illustrated truths which might *a priori* have been anticipated, but because they demonstrated, unquestionably, that there was a strong tendency for ducts having no function to dilate into cysts.—Mr. ALBAN DORAN observed that in the human female atrophy or removal of both ovaries was not invariably followed by loss of the attributes of femininity. In examining the hypertrophied broad ligament attached to ovarian tumours he had observed that large or small thin-walled cysts were often developed between the layers of the broad ligament far from the parovarium and even above the Fallopian tube. Yet such cysts were certainly developed, in other cases, from the extremity of the horizontal duct of the parovarium. Cysts of the vertical tubes of that structure of the hilum of the ovary and of Gärtner's duct always appeared to contain papillomatous growths. There was no doubt that the parovarium existed in woman as a part of the Wolffian body, that Gärtner's duct was generally persistent though impervious, and that the duct ran into the walls of the uterus, passing through the cervix, and then entering the cellular tissue of the vagina, where it ended in a blind extremity. Sometimes it made a turn on itself and ended in the same manner in the cervix, not reaching the vagina; this variation depended upon the extent to which the lower part of the fused Müllerian ducts developed into uterine, at the expense of vaginal structures. The pair of tubes in the walls of the human female urethra lead to ducts and have probably nothing to do with Gärtner's ducts. These "Skene's tubes" were subject to catarrhal affections.—Dr. DAWTREY DREWITT referred to the acquisition of male characteristics by female birds in whom there was disease of the ovaries or oviducts.—Mr. FREDERICK EVE spoke of large tumours formed at the expense of persistent Müllerian ducts. The hydatid of Morgagni about the epididymis was generally believed to be the dilated upper extremity of Müller's duct. Many encysted hydroceles of the testicle were derived from the organ of Giraldès.—Mr. SUTTON, in reply, said the cysts contained clear coagulable fluid but no papillomata. The remains of the Wolffian bodies in the hilum of the ovary might be the source of origin of papillomatous growths. Gärtner's duct might develop a cystic growth about its termination near the vagina.

Mr. KNOWSLEY THORNTON showed a specimen of Hydronephrosis due to Calculus, removed by Langenbuch's operation. The patient was a single woman aged thirty-two, who when first seen had an abdominal cystic tumour; she had enjoyed fairly good health till about two months before October, when the abdomen was found to be much enlarged and tender; an exploratory operation was made and the diagnosis arrived at. She had had pain in the right loin since eight years of age, and renal colic accompanied by sharp hæmorrhage occurred nine years ago. The urine was passed in normal quantity, was clear, pale, acid, and of a specific gravity of 1020, but contained no albumen. On Oct. 8th the lateral operation was performed and the ureter drawn out at the lower angle of the wound. Before removal of the kidney three pints of urine were drawn off, which contained a trace of albumen, had a specific gravity of 1015, and was slightly cloudy; an oval brown calculus was found on a bed of papillomatous tissue obstructing the ureter. The renal tissue was almost entirely destroyed over the whole of the renal cyst. This was the ninth successive case in which the abdominal operation had been successfully performed. The specimens of the tenth and eleventh cases were also shown. No cause could be assigned for the eleventh case. In the ninth case the left kidney was felt to be much enlarged along the side of the lumbar spine.

Mr. J. HOPKINS showed specimens of Bones from two cases of Tabes Dorsalis. Of the first case the upper end of a femur with old fracture of the neck presented changes identical with rheumatic arthritis. The patient had well-marked signs of tabes; the movements of the right hip-joint were too extensive, and gave rise to no pain; the right knee-joint was distended with fluid. During the three years the case was under treatment there were lightning pains and daily vomiting, but no gastric crises; the use of morphia aggravated the symptoms and caused vivid illusions, which later in the case became a marked feature. Muscular tremor and general wasting, together with bulbar symptoms, set in towards the close of the case. There was optic neuritis in the left eye, with concentric loss of vision. Of the second case the femur and articular ends of bones forming the knee and ankle-joint presented irregular cartilaginous surfaces, due to past ulceration and wearing down of cartilage. A ring of new cartilage, partly ulcerated, was to be seen round the head of the femur. There was a well-united fracture of the femur. The patient had suffered from lightning pains, but never vomiting. Bulbar symptoms were observed from time to time during three years. There was effusion into the right ankle-joint, which lasted six months; a spontaneous fracture of the left femur remained ununited after being kept in splints for three months. The patient had had optic neuritis of the right eye. There were well-marked symptoms of disease of the bulb at the time of death.

The following card specimens were shown:—Dr. Hebb: Sarcoma of Spinal Cord and Bacilli in Primary Cancer of Liver. Dr. Turner: Laceration of Kidney, with Aneurysm of the Renal Artery. Dr. Edmunds: Hypertrophy of Tibia. Mr. K. Thornton: Cystic Kidney and Scrofulous Kidney removed by Abdominal Operation. Mr. Arbuthnot Lane: Fracture of Sternum. Mr. Hutchinson: Diffuse Morphœa of Hand with Gangrene of Finger.

The following recent specimens were exhibited:—Mr. Rickman Godlee: Fracture of Skull with Effusion of Serum. Dr. Hale White: Primary Encephaloid Cancer of Liver; Ulceration of Trachea from Tracheotomy Tube.

Mr. Davies Colley showed a living specimen of Spondylitis Deformans of Dorsal Region.

CLINICAL SOCIETY OF LONDON.

Dysentery treated by Voluminous Injections of Nitrate of Silver.—Charcot's Disease.

AN ordinary meeting of this Society took place on Nov. 14th, Sir Andrew Clark, Bart., President, in the chair. The discussion on Mr. Morrant Baker's paper was adjourned till the next meeting.

DR. STEPHEN MACKENZIE read a paper on Cases of

Chronic Dysentery treated by Voluminous Enemata of Nitrate of Silver. The author alluded to a former series of cases he had brought before another Society, and stated that extended experience had strengthened his belief in the value of large enemata of nitrate of silver in the treatment of cases of chronic dysentery or dysenteric diarrhœa. The mode of procedure he adopted was as follows:—The quantity of nitrate of silver to be used was dissolved in three pints of tepid water in a Leiter's irrigating funnel, which was connected by indiarubber tubing with an œsophageal tube with lateral openings. The patient was brought to the edge of the bed and made to lie on his left side with his hips well raised by a hard pillow. The terminal tube, well oiled, was passed about eight or ten inches into the rectum, and the fluid allowed to force its way into the bowel by gravitation. The injection rarely caused much pain, and often none. It usually promptly returned, but when long retained it was advisable to inject chloride of sodium to prevent absorption of the silver salt. Various strengths had been used, from thirty to ninety grains to three pints of water, but usually one drachm of nitrate of silver was employed. The treatment was based on the view that, whatever the nature of dysentery, whether constitutional or local in the first instance, the later effects were due to inflammation or ulceration of the colon, which was most effectually treated, as similar conditions elsewhere, by topical measures. Sometimes one injection was required and sometimes two, and in some cases numerous injections were necessary; but in all the cases thus treated, many of which had been unsuccessfully treated in other ways previously, the disease had been cured. In most cases other treatment was suspended, but in some Dover's powder or perchloride of iron, which had been previously administered, was continued or subsequently prescribed. Six cases were narrated. In the first the disease had lasted several years off and on; two injections were used and the case was cured in six weeks. The second case was a second attack of dysentery of uncertain duration; four injections were used, and the case got well at the end of five weeks. The third case had lasted two months; two injections were used, and the case was cured in three weeks and a half. The duration of the fourth case was five years; one injection was used, and the disease was at an end in three weeks. The fifth case lasted eighteen months; two injections were used; the dysenteric symptoms disappeared, but the patient remained under treatment for diabetes. The duration of the sixth case was fourteen months; one injection was used, and a cure was effected in seven weeks. The treatment, which laid no claim to novelty, was brought forward to elicit the experience of others who had tried it, or to induce others to employ it in suitable cases.—DR. CARRINGTON doubted whether on further experience such favourable results would be repeated. At the Seamen's Hospital he had much experience of dysentery. He supposed that it was the voluminous nature of the injection for which the value of the treatment was claimed. He had employed injections of one pint without any marked effect on the disease. To him it seemed incredible that the severe lesions of dysentery could be cured by such a moderate amount of treatment. Moreover, it was probable that as much as six pints would be required to fill the colon.—The PRESIDENT said that the use of voluminous injections was known to the ancients. DR. MACKENZIE had clearly shown that the use of voluminous injections of nitrate of silver was of great value under certain circumstances.—DR. CULLIMORE asked whether the treatment advocated by Dr. Mackenzie had any advantages over other methods of treatment; were the cases cured in a shorter space of time? He considered that perfect rest, a proper dietary, and removal from their former mode of life, were the most important matters to attend to in the treatment. He referred to one case in which the injection of a solution of nitrate of silver caused a considerable amount of pain along the course of the colon. He had seen a case which led him to believe that starvation might be sufficient to cause the disease. Injections of iodoform were used, but opium and tincture of krameria did far more good.—DR. DYCE DUCKWORTH said that he had treated but one case, and in this the results were not very remarkable. The case was a moderately severe one, involving the colon and sigmoid flexure. He could not but think that cases which were called dysentery varied much in etiology and pathology. The influence of temperament and diathesis in tropical diseases was one which required to be a good deal more recognised than was at present the case.—DR. BERNARD O'CONNOR asked how long a time had elapsed since the above results had been obtained. He had known hot water injections to cure the disease.—The PRESIDENT asked the author to state the mode in which the injections were used, and to describe the character of the stools before the treatment was begun.—DR. STEPHEN MACKENZIE, in reply, said that the account in his paper would answer most of the questions. Many times in his paper he used the terms chronic dysentery or dysenteric diarrhœa. These names related to a condition which those who had had acute dysentery at some time might suffer from. The patients were greatly emaciated, and there was much anæmia, with dryness of all the mucous membranes. In cases of slighter ulceration, he believed that this method of treatment would be found to be far more effectual than other modes. He had noticed that the same class of cases came to the London Hospital as went to the Seamen's Hospital at Greenwich; amongst them were cases of various degrees of chronicity and severity. He had seen a single injection cure a case of dysentery which was complicated with chyluria. It was impossible for him to speak as to the permanency of the cure in the class of patients who were under his care. He ventured to think that distension of the colon was not required, and might be dangerous; three pints was a good quantity to inject, and seemed to effect all that was necessary.

MR. MORRANT BAKER read a paper on three cases of Joint Disease in connexion with Locomotor Ataxy. The paper was illustrated by casts and specimens. The patients were two males, aged respectively forty-six and fifty-six; and a female, aged fifty-four. In all, the symptoms of locomotor ataxy were well marked, the disease having existed in one case for about two years, in another for a few months, and in the third for twenty years. In the two men the joint chiefly affected was the right knee-joint; in the female the right elbow-joint and both hip-joints, with incipient disease of the left elbow-joint, were the diseased parts. In all the cases the disease of the joints was apparently a typical example of the affection usually termed Charcot's disease. The joints were much enlarged, the articular surfaces greatly misshapen, and the ligaments weakened or destroyed. There had been very considerable wearing away of the articular ends of the bones—one or other condyle and a large portion of the head of the tibia in the case of the knee-joints, and apparently nearly complete disappearance of the heads of the femora in the case of the hip-joints. The joints were loose and flail-like; although in the case of the diseased elbow-joint, and in those of the knee-joints, the patients retained considerable power of voluntary movement. Mr. Baker remarked that he had brought the cases before the Society chiefly in order to add to the record of facts regarding a rare and not well-understood disease; but he thought a discussion might well be raised in connexion with them on the following points:—(1) Whether the disease is actually new? (2) What are its alliances, if any, with rheumatoid arthritis? (3) If connected with the last-named disease, is its occurrence in conjunction with locomotor ataxy a mere coincidence? or do these stand in the relation, one to the other, of cause and effect; and (4) if connected pathologically both with rheumatoid arthritis and with locomotor ataxy, should not all cases of rheumatoid arthritis be considered of neurotic origin, whether accompanied or not by symptoms of locomotor ataxy? There is still another theory possible, even if Charcot's disease and locomotor ataxy and rheumatoid arthritis are all connected in pathological origin. It is conceivable that all arise from some antecedent diseased condition of which the result is expressed in pathological changes, sometimes in the cerebro-spinal nervous system, sometimes in the joints, and sometimes in both.—MR. ARTHUR E. BARKER related the case of a man aged thirty-eight, a railway porter, who came to him suffering from urinary troubles, the chief of which was increased frequency of micturition; the disturbance of the act of micturition was most evident when the bowels were loaded. Much nausea with curious feelings, and even vomiting with pain in the epigastrium and a feeling of distension about the abdomen, were complained of. Numbness in the feet and attacks of "rheumatic" pain in the limbs were experienced sometimes. The first symptoms began in January, 1881, and later a perforating ulcer appeared in the sole of the right foot, but, with the above exceptions, there were no other symptoms of ataxy, as Drs. Gowers and Barlow testified on different occasions. A second ulcer on another part of the sole of the foot appeared a few months after the first. Both these ulcers were benefited by treatment, and the patient was

lost sight of for a time. When next seen gastric symptoms were again dominant, and the ulcers on the right foot had taken on fresh action; it was also noticed that the foot was much worse after the gastric attacks. With a variable course the case went slowly on, when at the beginning of the present year complaints of shooting pains in the left thigh and quivering of the muscles were recorded. A feeling of sudden weakness was from time to time experienced. Soon one of the knee-joints underwent complete disorganisation. The tibia was dislocated inwards and a little backwards. Yet all through this time, and up till the present date, the knee jerks were present; there were no ocular phenomena, and none of the ordinary objective phenomena of tabes dorsalis.—Dr. DYCE DUCKWORTH implied that the view which referred the joint disease to the class of ordinary rheumatic arthritis was not accepted by him. He believed that Charcot's disease was a definite form of joint-disease distinctly associated with disease of the nervous system. Clinically, the course of the two diseases above mentioned was very different. If we remembered that in the course of a few weeks an amount of destruction existed such as was not seen in ordinary cases of rheumatic arthitis after the lapse of twenty years, he did not perceive how confusion between the two diseases could arise. He was of opinion that an acute observer of such long experience as Charcot was hardly likely to fall into error on this question. The joint change was not due to injury and was not like an ordinary arthritic affection. Referring to pathological appearances, he said that if there were one creed in medicine which was more axiomatic than another, it was that which believed that identity of lesion was by no means a proof of identity of process which had led to it.—Dr. HALE WHITE said there must be something radically wrong if an acute observer like Moxon could assert that out of thirty cases of tabes dorsalis there did not happen to be one of joint disease, when it was recollected that one in every ten was the proportion given by Charcot. He referred to a case which he had discovered in the post-mortem room where the temporo-maxillary articulation presented changes perfectly indistinguishable from those ascribed to Charcot's disease, whilst all the other points were unmistakably examples of rheumatic arthritis. He thought there were many points in common between the two maladies; examples of the two cases were mixed up, and there were so many connecting links between the two that the opinion that Charcot's disease was rheumatic arthritis modified by the special conditions of the disease was probably the correct one.—Dr. BUZZARD thought that although we had no proof, yet the probability was that the disease was not new. He had searched through Graves' work, which antedated Romberg's or Duchenne's account of tabes dorsalis, and there discovered an account of a case characterised by typical gastric crises which was without doubt one of locomotor ataxy; and this occurred as long ago as 1823. Further, it must be remembered that cases were so little recorded in earlier times, that an enormous increase of population had occurred, and that till within the past fifty years or less there were no out-patients to our hospitals, and so it was not strange that we should come across many more cases in proportion than would have been met with many years ago. It was in 1868 that Charcot described a case of joint affection alone, and it was five years later when a case with disease of several joints and with spontaneous fractures of the long bones was published by him. That observer believed that the osseous tissues were primordially involved in these cases, and that the joint disease was a part of the osseous alteration. Lionville investigated the subject by comparing a case of arthropathy associated with tabes dorsalis and a case of spontaneous fracture of the bones occurring in locomotor ataxy. He found that the same changes pertained in each instance. There was dilatation of the Haversian canals, with remarkable thinning and erosion of the bones. Regnard investigated the bones from a chemical standpoint, and found that the mineral substance was reduced from 48 to 11 per cent., and that the fat rose from 5 parts to 37. Dr. Buzzard suggested that surgeons should measure the specific gravity of the bones entering into the formation of the diseased joint with a view to possibly distinguishing between Charcot's disease and rheumatic arthritis; the specific gravity would probably be found to be greatly diminished in the former. In Dr. Adams' classical work on Rheumatic Arthritis no mention is made of such changes. It was to the surgeons that cases of joint disease naturally went, and though he had seen some hundreds of cases of tabes dorsalis, yet he could almost count on the fingers of his hands the number of cases of joint disease which had come to consult him amongst the sufferers from tabes dorsalis. He opined that a suddenly occurring painless swelling of a joint would not lead its possessor to go to a physician. Dr. Charcot's opportunities at the Salpêtrière were different from those of a physician to an English hospital. The patients included such as are found in our workhouse infirmaries, and they remained for years under observation. These considerations afforded a complete explanation of Dr. Moxon's experience. Having had to do with a large number of cases of nervous disease in the out-patients, as well as in the in-patients, of a hospital devoted to nervous diseases, it was not strange that he (Dr. Buzzard) should have met with several cases of associated joint disease, and yet in every such association the nervous disease was found to be tabes dorsalis. On the other hand, he had watched cases of rheumatic arthritis for years, and they never developed the symptoms of tabes dorsalis. He had investigated a great many cases of rheumatoid arthritis in English infirmaries, and, except where the mechanical conditions prevented him from testing it, he found the knee-jerks always present and the ocular phenomena natural. He considered that Charcot's disease contrasted clinically in the strongest manner with rheumatic arthritis.

The following living specimens were shown before the meeting:—Mr. Malcolm Morris: A case of Favus from Lisson-grove. Dr. Radcliffe Crocker: Atrophy of the Scalp from Favus of long standing. Mr. A. E. Barker: Intra-uterine Constrictions of Lower Limbs. Mr. Morrant Baker: Charcot's Disease. Mr. Anthony Bowlby: Joint Disease and Locomotor Ataxy. Mr. R. W. Parker: Two cases of Spina Bifida. Dr. Charlwood Turner: Charcot's Disease. Dr. Donkin: Muscular Atrophy and Osseous Disease.

MEDICAL SOCIETY OF LONDON.

Koumiss.—Conduction of Physical Signs.

AN ordinary meeting of this Society took place on Monday last, Mr. Arthur E. Durham, President, in the chair.

Mr. NOBLE SMITH exhibited a case of cured Meningocele of the Occipital Region, treated by iodo-glycerine (Morton's fluid), in a child aged eleven months.

Dr. CARRICK read a paper on Koumiss. He drew attention to the similarity between asses' milk, mare's milk, and human milk. A table contrasting the cow's milk with woman's, mare's, and asses' milk was drawn up, from which it was shown that the reaction of the larger group was always alkaline, whilst the cow's milk was neutral or slightly acid. The casein of the larger group occurred in thin flakes; that of cow's milk in thick, compact, lumpy masses. When dried the casein of the larger group was granular and soluble in water and coagulable by neutral salts—e.g., sodium chloride; casein from cow's milk when dry was horny and almost insoluble in water and not coagulable by sodium chloride. Cow's milk could be churned into butter, but this was not the case with the milk of the larger group. The subjective symptoms due to a diet of koumiss were described in detail, and the effect of such a diet on the chemistry of the body was entered into. Koumiss was of much value in all diseases associated with wasting and in many kinds of ulceration of the bowels. Its powerful diuretic action might prove of use in cases of renal disease. In cardiac disease koumiss was most valuable. But consumption was the disease *par excellence* in which koumiss effected so much good.—Dr. JAGIELSKI had introduced koumiss into this country fifteen years ago. Clinical experience led him to believe that koumiss made from cow's milk was as good as that made from mare's milk. It was necessary to remove part of the casein and part of the fat and to regulate the amount of sugar.—Dr. THEODORE WILLIAMS said that Dr. Burdon Sanderson had not formed a very good opinion of the use of koumiss in consumption. He had tried it in many diseases associated with vomiting with marked benefit.—Dr. CULLIMORE thought the climatic conditions had much effect in the koumiss cure in the steppes of Russia.—Dr. EDMUNDS understood that the author only claimed koumiss to be a nutritive agent of extraordinary power. New milk was known to be more digestible than milk that had stood for some time.—Dr. CARRICK said that koumiss was fermented mare's milk and not fermented cow's milk.

Dr. MARKHAM SKERRITT (Clifton) read a paper on the

Conduction of Physical Signs in Diseases of the Lungs. It was universally recognised that the lung tissue acted as a conducting medium for physical signs in heart disease, but it was not so fully appreciated that the physical signs of lesions of the lungs themselves might be detected at a distance from their source. It might be stated (1) that physical signs due to disease of a limited portion of lung were liable to be conducted by the adjacent tissue so as to be recognised at a distance from the site of the lesion—as in front when the disease was at the back, or on the sound lung when one lung only was affected; (2) that it was therefore as important to trace to their origin the physical signs dependent upon lung disease as it was to follow out those of a cardiac lesion. Instances were adduced of the adoption by a consolidated lung of the signs of pneumothorax derived from the opposite side: the transmission to the sound side of the tubular breathing of pneumonia, the interchange of physical signs between the affected side and the unaffected in pleuritic effusion, the conduction of the physical signs of phthisis from one apex to the other, and the conveyance throughout the pulmonary region of sounds having a strictly localised origin. The physical signs most liable to conduction were those of auscultation; and of these, chiefly râles and altered breathing. In the localisation of a conducted sign in lung disease the process was the same as in the case of a cardiac lesion. In conduction a physical sign (1) retained its special quality; (2) lost in quantity in proportion to the distance from its source. The readiness with which a physical sign was conducted was also of value as an indication of the state of the transmitting tissue. The subject of the paper was one of considerable practical importance, as instances had been met with where error had resulted from the want of a due appreciation of the facts adduced.—Dr. THEODORE WILLIAMS remembered several instances in which it had been difficult to arrive at a correct diagnosis from physical signs being conducted away from the place at which they originated.—Dr. DE HAVILLAND HALL thought that the auscultatory signs over the lung ought to be checked by palpation, percussion, and auscultation of the vocal sounds. He referred to the possibility of conduction by means of a thickened pleura or enlarged mediastinal glands.—Dr. COUPLAND thought there was some novelty in the belief that the physical signs of phthisis might be conducted to the healthy lung, and related a case of asthma bearing on the subject.—Dr. KINGSTON FOWLER said it was very common to find that the physical signs of a cavity at one apex of the lungs were conducted to the opposite apex. It was necessary to verify the auscultatory signs by other methods of physical examination.—Dr. SKERRITT briefly replied.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING of the above Society was held on Wednesday, Nov. 5th, Henry Gervis, M.D., President, in the chair.

The following specimens were shown:—Mr. Sydney Jones for Mr. Lawson Tait: Tubal Fœtation. Mr. Thornton: Fibroid Uterus, with two Cystic Ovaries, removed by operation. Dr. Aveling: Fibroid of Uterus, with Cystic Degeneration, removed by operation. Mr. Walter Griffith: Retroverted and Adherent Uterus, with two Prolapsed and Adherent Ovaries. Dr. Bantock: Hagedorn's Surgical Needles and Holder. Dr. W. Duncan: Double Intra-uterine Tube. Dr. Godson: Greenhalgh's Spring Pessary, with Glycerine Pad.

A plea was raised for the revival of Toughened Glass Specula by Dr. Heywood Smith.

A paper was read on the Severe, or so-called "Uncontrollable," Vomiting of Pregnancy, by Dr. GRAILY HEWITT. Although many theories of the cause of the severe, or so-called "uncontrollable," vomiting of pregnancy have been put forward, the profession has not adopted any of them. The author's object in the present paper is to investigate the question as to the influence of morbid conditions of the uterus in giving rise to the disease. The facts and cases published and available for discussion of this question are now arranged, and tabulated, and analysed. The first series of cases are thirty-two in number, and include all cases the author has been able to collect in which the condition of the body of the uterus was noted and observed in cases of severe vomiting in pregnancy. In a second series of cases, thirteen in number, the condition of the os and cervix uteri was particularly noted and described. These two series of cases constitute the clinical data available for use in the discussion of the question as to the influence of the condition of the uterus itself in causing the vomiting, and they include 10 cases observed by Prof. Horwitz of St. Petersburg, 8 recorded by the author, 7 by Dr. Copeman, 2 by Stoltz, 2 by Dance, and single cases recorded by other authorities. In the series of 32 cases there are 28 cases of a very typical description, in which sickness of an intense degree of severity was present in the course of the first half of pregnancy. In the majority of these 28 cases the vomiting was so severe that the question of artificial abortion arose. In 23 of these cases the uterus was in a state of decided anteversion or anteflexion, and in 12 of these 23 cases there was impaction of the anteverted or anteflexed uterus in the pelvis. In one case the uterus was anteverted slightly, but had been considerably anteflexed shortly before the pregnancy occurred. In 4 of the 28 cases the uterus was retroverted. It thus appears that out of the 28 cases in question the uterus was decidedly altered in shape and position in 27 cases, and in the one case remaining was anteverted slightly. The cervix was thickened and unduly hard in 3 out of the 32 cases, and much thickened in 6 cases. In the other series of 13 cases the cervix was described as very hard in 4 cases. In 2 cases (of the 32 series) pus was found between the uterus and decidua after death. There was excessive sensitiveness of the uterus in most of Horwitz's cases, and in 4 or 5 what Horwitz terms parenchymatous inflammation. The remarkable feature in the series of 32 cases is that in all the cases where attempts were made to raise the uterus from its displaced position, and when that attempt was successful, the vomiting ceased, whereas when the attempt failed the vomiting continued and the patient died, the exceptions being those in which artificial abortion was induced, and one in which abortion occurred naturally. In some of the cases artificial abortion was had recourse to as a primary procedure. Of the 32 cases, 11 died, 20 recovered, and in 1 the result was not known. The 20 recoveries include 6 after induction of artificial abortion, 1 natural abortion, 7 after manipulative treatment and replacement of the uterus, and 6 following positional treatment, rest, anti-inflammatory remedies, &c. The second series of 13 cases were, with one exception, cases in which the new treatment suggested by Copeman was carried out, and in which no record is given as to the state of the body of the uterus. In these 13 cases recovery took place. The author concludes: (1) That the cases in which the disease is due to some other organ than the uterus are so few in number (only 1 in the series of 32) that they may be almost excluded from consideration. (2) That in the large majority of cases the disease presents itself during the first half of pregnancy. (3) That the evidence points to interference with the normal expansion and growth of the gravid uterus as the condition of the production of this dangerous affection, and that this is most frequently brought about by or in connexion with detention of the bulk of the uterus in the bony pelvis, in 88 per cent. the uterus being anteflexed or anteverted, and in 12 per cent. in a state of retroversion; the other conditions met with being hardness, resistance, or unusual rigidity of the os and tissues of the cervix. (4) There appear to be two factors to be considered capable of interfering with the expansion of the uterus: (*a*) incarceration with flexion or version; (*b*) undue hardness and rigidity of the os and cervix; these may be conjoined in a given case. It appears to be borne out by the facts recorded that the incarceration is the more important of the two factors as a rule at least. The facts appear to point to the occurrence of embarrassment in the expansion of the uterus very early in the pregnancy, such as might be expected to be occasioned by a previously flexed state of the uterus, or to a congested indurated state of the cervix, or to the two conditions combined. As the pregnancy advances the congestion and swelling are intensified and the resistance to expansion thus increased. It appears probable that the particular cause of the sickness observed is the compression of the nerves situated in the tissues which are especially exposed to compression—viz., those around the cervix uteri and especially those near the internal os. Copeman's success in the treatment of severe sickness by dilating the internal os is evidence in this direction. The importance of the flexion element has been denied, one principal objection being that sickness is not always present when the uterus is flexed. But the case is the same in the non-gravid uterus; severe sickness is not seldom due to flexion of the non-gravid uterus, while flexions are observed without sickness. Corroboration of the author's views are contained in Gehrung's

recent paper. As a rule severe sickness is limited to the first half of pregnancy, in a very few cases it persists longer; in these rare cases the cause may be rigidity of the tissues round the internal os, persisting to a late period. As regards treatment the first indication is to secure the normal upward movement of the fundus uteri, to relieve the incarceration of the uterus when present, if that be possible, and to prevent its occurrence by a properly arranged method of treatment. Absolute rest in the supine position if anteversion be present, or on the face or side if retroversion be present, and the use of the knee-elbow position will be required. These measures suffice in many cases. If the uterus be fixed gentle continuous pressure must be applied internally by the fingers or by an air-ball and the position maintained by a suitable pessary. These measures failing, Copeman's procedure of dilating the cervix should be employed. The last alternative, induction of artificial abortion, will, it is believed, be rendered unnecessary if the other less severe measures are applied sufficiently early.—The discussion, which was adjourned soon after its commencement, will be given in the notice of the next meeting.

ABERNETHIAN SOCIETY.

AT the meeting held on Thursday, Nov. 13th, Mr. O. LANKESTER and Mr. STEPHEN PAGET read short papers on Infantile Diarrhœa and Abdominal Abscesses respectively. Mr. Lankester's paper treated of simple diarrhœa, unconnected with organic disease of the intestine. He divided the subject into the four varieties of (1) non-inflammatory, (2) inflammatory, (3) choleraic, and (4) dysenteric. Of these four, he discussed only the first two varieties. He mentioned cold, bad feeding, dentition, and worms as the chief causes, and sketched out the diet of infants. He mentioned the complications of diarrhœa—as blood in the stools and prolapse of the rectum; and spoke of the use of opium in the latter complaint. Mr. Lankester next alluded to the uncertainty of diagnosis in cases of diarrhœa caused by dentition. With regard to the inflammatory diarrhœa, the causes may be the same as those of simple; also bad smells. In considering the question of diet, he spoke of the necessity of avoiding milk, and advised the substitution of broth; also white wine whey in cases where collapse is present. He alluded to the use of mustard baths and brandy, to the antiseptic treatment, washing out the stomach, and administering small doses of benzoate of soda frequently. In chronic forms of inflammatory diarrhœa, the utmost attention should be paid to diet, and pepsin and raw meat were very useful in such cases.

Mr. STEPHEN PAGET, in discussing Abdominal Abscesses, divided the subject according to the causes. 1. Injury or disease of the wall itself: (*a*) contusion; (*b*) tracking of discharge from a non-penetrating wound; (*c*) injury or disease of bones or muscles; (*d*) inflammation of the connective tissue between the muscles. 2. Inflammation of the subperitoneal connective tissue. 3. Injury or disease of internal organs. 4. Deep-seated cancer. Mr. Paget mentioned some extraordinary cases which have been recorded from time to time, and also the frequency of abscesses following necrosis of a rib from scrofula or typhoid fever. He next discussed the nature and appearance of phlegmonous inflammation of the connective tissue, and cases were cited showing its causes, and also its course under treatment.

Mr. PAGET brought forward three cases of Pelvic Abscesses in young women which were treated by puncture or incision through the abdominal wall, and also three cases of Deep-seated Abscesses of the Subperitoneal Connective Tissue incised above the pubes and drained. Lastly, six cases were given of Abscesses of the Abdominal Wall due to Deep-seated Cancer. In conclusion, Mr. Paget urged the necessity of treating all acute abscesses of the abdominal wall as soon as possible and by incision rather than by puncture, and impressed upon his hearers the fact that in elderly people the cause is frequently cancer.

GLASGOW UNIVERSITY MEDICO-CHIRURGICAL SOCIETY.

Address by Professor Gairdner.

THIS Society, established and maintained by the students of the university for the purpose of mutual improvement and the reading of papers and discussions during the session, met on the 14th inst. to hear the address of the annual honorary president, Professor W. T. Gairdner, M.D., LL.D. Dr. Joseph Coats, the retiring honorary president, took the chair, and was supported by Dr. Rutherford, the acting president; Mr. John M'Phail, vice-president; and other office-bearers, together with Dr. Lindsay Steven, a former president. Dr. Gairdner's address, as announced, was on "The Self-Education of the Medical Student." On this subject he said that the purpose of the address, which, he feared, must after all be very unequal to his intentions and to his hearer's goodwill, was to make a few reflections or suggestions as to what he had termed "self-education"—meaning thereby something outside the regular discipline of the curriculum, and yet not so entirely removed from professional work as to be even apparently foreign to, and apart from, it; in other words, not the more general—moral, religious, ethical—discipline which is usually implied in "self-culture," as, for example, it has been admirably treated in a little book by his friend Professor Blackie. Professor Gairdner's aim was to show that, even in the midst of the medical education, so called, which is laid down in the curriculum, and which is therefore compulsory, and may be even felt by some as a bondage, there is a good deal over and above which is really and truly a part of medical education, and which a student can only do effectually for himself. It was impossible, however one might try it, altogether to sterilise the human mind. The mind of man, from babyhood upwards, presents a fruitful soil on which one may grow almost anything, provided only that the thing in question is alive, or has the potency of life in it. The true distinction between education, properly so called, and what is termed mere erudition, or cramming, is that the latter consists of putting into the mind lifeless or comparatively inert matter, not necessarily useless, inasmuch as it may make a good manure, but not seminal, and therefore not capable of growth; while the former consists in a process of inoculation or insemination of the mind with principles which, being alive and fitted for growth, and finding there a fitting soil, inevitably tend to grow and develop into organisms. This being the essential nature of all education, that it is a growth as of a seed into a plant within the mind, there may be, nay, there must be, a bad education possible as well as a good. The principles of evil will grow in that fruitful soil of the human mind just as well as the principles of good, in some cases, perhaps, still more actively and irrepressibly. The one point in both instances which makes it an education is that it is a growth; that in the act of developing into an organism the seminal principle implanted or inoculated alters the very constitution of the mind itself as effectually as the yeast fungus changes the nature of a saccharine solution, or the septic organism disintegrates the nitrogenous elements in which it becomes developed. Continuing the analogy, Professor Gairdner stated that this education, or insemination, of the mind for good or for evil was, in reference to other minds, of the nature of a contagion or infection. A small, often an infinitesimal, inoculation of the results of education in one mind was sufficient so to influence another, or even a multitude of other minds, as to give rise to a similar growth in them to an extent practically limitless, so that a single truth in science, a single principle of working in an art, a thought that breathes, a word that burns, may spread its influence through a family, a school, a profession, or a nation, it may be, as surely as the torula cerevisiæ will multiply in any number of saccharine solutions, or as the germs of anthrax, or of small-pox, or of cholera will spread through any number of flocks and herds, or of human beings, all over the world, if only they find a fitting, and, still more, an unexhausted or virgin soil for their development. If one does not implant, or inoculate, the right kind of germs, or educational influences, in sufficient abundance, or if one does not place them in the necessary conditions for their growth, other influences will certainly occupy the field, and will grow there in spite of all efforts, till the mind becomes, like the world in the eyes of the Prince of Denmark—

> "An unweeded garden,
> That grows to seed: things rank, and gross in nature
> Possess it merely."

THE late Mr. Jonathan Barlow by his will directed that the residue of the pure personalty be handed over to the vestry of St. George's, Hanover-square, or the vestries of any of the adjoining parishes, at the discretion of his trustees, for the maintenance of public watercloset and urinals and their proper inspection, so that the public may have free use from the public thoroughfare.

Reviews and Notices of Books.

On Sclerosis of the Spinal Cord. By JULIUS ALTHAUS, M.D., M.R.C.P. Pp. 385, with nine engravings. London: Longmans and Co. 1885.—The first 323 pages of this volume are chiefly occupied with the morbid anatomy, pathogenesis, etiology, symptoms, diagnosis, prognosis, and treatment of so-called tabes dorsalis. There can be but little question that "locomotor ataxy" deserves all the attention which it has received at Dr. Althaus' hands. The work is strongest on the clinical side; that department, in fact, in which the author has had the most experience. Chapter 6, on the symptoms of "tabes spinalis," is a very careful and accurate study of the disease. In the first or pre-ataxic stage of the malady the author makes twenty-one divisions, not to count the subdivisions. The process of division is not carried too far. A glance at the table of contents relating to symptomatology perhaps does more towards giving one an idea of the protean nature of the pre-ataxic stage of locomotor ataxy than any amount of continuous reading would do. The whole work is highly commendable. A characteristic feature is the introduction of a large number of clinical cases gathered from the author's wide experience. In the departments which are not devoted to the symptoms and treatment of the disease, Dr. Althaus presents his readers with the best results of other authors. Recent researches receive proper recognition in their appropriate places. This work cannot be reviewed in other than a favourable strain. In phraseology a few peculiarities may be found. We do not appreciate the phrase "reflectory rigidity of the pupil" as a descriptive one for the "Argyll-Robertson pupil." Dr. Althaus speaks favourably of the use of antisyphilitic treatment in the first stage of "tabes dorsalis." "As far as electricity is concerned, however, we must look to the constant current as our sheet-anchor in these cases. The constant current is not able to restore central nerve tubes which have been destroyed, but it has the tendency, by its catalytic and stimulating effects, to improve the nutrition of those which are beginning to be diseased, to strengthen the remainder, and also to some extent to call into play the law of substitution, thus causing healthy fibres in neighbouring strands to perform the work of others which have perished." It is perhaps too much to believe that the constant current exerts all the properties which are here attributed to it.

Transactions of the Academy of Medicine in Ireland. Vol. II. London: Baillière, Tindall, and Cox. 1884.—This second large volume is a very good continuation of the new series. Want of space forbids our giving it the full recognition it deserves. The subjects of which it treats are both numerous and varied. The articles in the Pathological Section are exceptionally good. Mr. Benson's investigations into the nature of jequirity inflammations constitute a new chapter in the progress of the pathology of inflammations caused by the drug. Dr. Nixon's papers on brachial monoplegia and reflex paralysis are of much interest and Mr. Story's articles on cases of disease of the nervous system must also be mentioned. Mr. Stokes' case of ossifying sarcoma of the skull is accompanied by an excellent illustration. Nine other illustrations give the volume an additional value.

The National Dispensatory. By ALFRED STILLÉ, M.D., LL.D., and JOHN M. MAISCH, Phar.D. Third Edition. London: J. and A. Churchill. 1884.—We have much pleasure in recording the appearance of a third edition of this excellent work of reference. It is an admirable abstract of all that relates to chemistry, pharmacy, materia medica, pharmacology, and therapeutics. It may be regarded as embodying the Pharmacopœias of the civilised nations of the world, all being brought up to date, with the exception of our own, which, from its antiquity, is useless for all practical purposes. The work, as a rule, has been very well done, a large number of extra-pharmacopœial remedies having been added to those mentioned in previous editions. The only fault to be found is with the paucity of references to pharmacological papers. It would be easy to give examples, but it will suffice to instance the subject of nitrite of sodium, the literature of which appears to have escaped the notice of the authors.

Life in the Soudan. By Dr. JOSIAH WILLIAMS, F.R.G.S. London: Remmington and Co. 1884.—At a time when our thoughts are largely concentrated on the Soudan, this work by Dr. Josiah Williams will prove acceptable to a considerable section of the reading public. Dr. Williams has travelled a good deal, and has seen something of military life as a surgeon in the Turkish Army. In 1881 he accompanied a party of gentlemen, who were visiting the Soudan for sporting purposes, and the book before us is his diary extending from the winter of 1881 to the spring of 1882. Dr. Williams is a lively writer, and has an eye for detail which is always pleasant in a book of travels. He gives the history of the journeyings of the caravan day by day from December to March, and a perusal of it affords a capital insight into the camp life of the sportsman, and some of the manners and customs of the tribes of Upper Egypt and on the borders of Abyssinia.

The Asclepiad. By Dr. B. W. RICHARDSON. London: Eade and Caulfield.—The October number of this quarterly maintains the high standard of its predecessors. An essay on the mental phenomena of typhoid fever is full of suggestions; the author believes that every definite physical disorder has associated with it its own equally well-defined mental phenomena. Typhus is marked by short, delirious, broken dreams; remittent fever by long, dolorous, painful dreams; scarlet fever by realistic dreams; and so forth. A spontaneous cure of extreme portal congestion by copious accidental hæmorrhage is a carefully related clinical study. A coloured plate of perfect definition accompanies the description of disease due to bichromate of potassa. "Schools of Physic, Past and Present," is a very readable article. The article on a "Great Medical Reformer" has already received notice at our hands.

Christmas and New Year Cards.—Messrs. HILDESHEIMER and FAULKNER have forwarded to us packets of their leading designs in Christmas cards for the present season; also specimens of illustrated books. Many of these works of art are very beautiful. Our space will not allow of an enumeration of the specimens which have most excited our admiration, but the cards as a whole are of such excellence that no surprise can be felt that the above-named firm were successful in securing the gold medal (highest award) at the late International Exhibition.

THE University of London Lodge of Freemasons No. 2033, held a meeting on Thursday last, under the presidency of Mr. F. A. Philbrick, B.A., Q.C., when the following resolution was moved by the chairman, seconded by Dr. Alfred Meadows, J.P., and unanimously carried: "That this Lodge desires to place on record the expression of its sincere regret at the decease of one of its first members, the late Bro. Havers, F.R.C.S.E., and to express its sense of the great loss which English Freemasonry has sustained by the removal of one of its most able and zealous supporters." At the close of the meeting Professor J. Curnow, M.D., called attention to the circumstances attending the sad death of the late Dr. Rabbeth, a distinguished graduate of the University, through his self-devotion in endeavouring to save the life of a child patient, and the members present made a substantial addition to the fund now being raised for the purpose of establishing in the University a gold medal in honour of his heroism, and to perpetuate his memory.

Abstracts
OF
INTRODUCTORY ADDRESSES
DELIVERED AT THE
DUBLIN HOSPITALS & MEDICAL SCHOOLS
AT THE
Opening of the Session 1884-85.

ROYAL COLLEGE OF SURGEONS MEDICAL SCHOOL.

MR. STACK pointed out the attractions that Dublin possessed, in a scenic point of view, over other centres of learning, but there were, however, more solid grounds for preference. First of all he would mention the admirable clinical training that was given, far superior in every way to that provided in some of the best London hospitals. The lecturer then enumerated the various branches of knowledge which the students on entering would have to take up—anatomy, physiology, chemistry, materia medica, toxicology, and mechanics—and having dwelt upon the amount of general knowledge that should be brought to the study of each of these subjects, he pointed out how essential a thorough grasp of them was to a comprehensive knowledge of the requirements of the profession. Mr. Stack next referred to the particular branch with which he was connected. A truer knowledge of dentistry, he said, was now being diffused; great progress had been made in it in the medical schools throughout the United Kingdom, and the Council of the Royal College of Surgeons of Ireland had introduced into their schools all the most recent appliances in connexion with this long-neglected study. With the aid of some diagrams he next explained the structure of the teeth, and the various methods that had been adopted for arresting their decay. The use of plates was being gradually superseded, but it was evident that for a long time yet they would have to be used. He remarked upon the advantage it was to a dentist to have a knowledge of chemistry; in fact, of all the branches he had already referred to as entering their curriculum. He concluded by exhorting the students to apply themselves to their studies in such a way that they should hereafter become a credit to their College and ornaments to the noble profession they were now entering.

ST. VINCENT'S HOSPITAL.

DR. QUINLAN, after some prefatory remarks, referred to the results of the recent Copenhagen Congress and to the scientific work done there. Speaking generally, it might be said that the Copenhagen meeting showed that the most wonderful progress had been made in the last seventeen years, during which the profession of the whole civilised world had worked as one harmonious body, and had met periodically for international discussion. No other human avocation or calling presented the spectacle of several thousand scientific investigators from every part of the globe meeting together for a week in some selected rendezvous, listening and discussing, generally through the medium of some artificially acquired language, and the flitting to their distant homes enlightened and improved. There they heard and saw those famous celebrities who would otherwise be to them simply names. To enter into details would be impossible, but he would single out the great discovery of M. Pasteur, who appeared to have found out a method of extinguishing hydrophobia. M. Pasteur succeeded in attenuating the hydrophobia poison, and inoculated dogs with this enfeebled virus. The animals sickened but got well, and having gone through this process were found to be protected against hydrophobia even more effectually than ordinarily inoculated human beings are against small-pox. The next most important address was that of Tommasi Crudeli, of Rome, upon malaria. The debate on pulmonary consumption and tubercle was a remarkable one, notwithstanding the absence of Prof. Koch, who was not there to defend his bacillus. It was enlivened by the declaration of Prof. Jaccoud of Paris, that the bacillus discovery was almost sterile for clinical purposes, nor will any practical physician deny this. The infective character of consumption was admitted, but while there is no doubt that in Southern Europe there is an actual danger, in our colder latitudes the occurrence is exceptional. He would earnestly recommend his young audience to cultivate such an acquaintance with French and German as would enable them to at least understand these languages when spoken or read. The next meeting would be held in New York in 1887, and the following one in 1890 and probably in Constantinople. There was great and noble work to be done, and let them hope that their great cosmopolitan profession would approach it with intelligence, patience, and energy; with no political, religious, or personal object to serve, but looking solely to the advancement of science and the benefit of their common humanity.

MATER MISERICORDIÆ HOSPITAL.

MR. M. A. BOYD, after recommending his hearers to seek to obtain degrees in arts as well as medical degrees, and expressing his opinion that the prospects of scientific education never looked brighter than they do to-day, said that our knowledge of therapeutic science, or the physiological action of medicines based on scientific experiment, was every day being added to, and the action of remedies both new and old more thoroughly understood, and our knowledge of them rendered more accurate. In this particular branch he would instance the use of a number of new antipyretics or remedies that abate undue heat of body by lowering arterial tension, and regulate the action of the heart and blood-vessels through the nerves that govern them. It was seventeen years since the revision of the Pharmacopœia, and since then a number of new drugs had been introduced. During this time operative surgery had been revolutionised by the antiseptic treatment of wounds; dermatology by the use of petroleum ointments, and therapeutics swelled by the introduction of many important drugs and definite chemical remedies. The student of to-day had not to cudgel his brains as to what was the direct specific for this disease or that; his more exact knowledge of disease as affecting different organs, and the pathological changes taking place therein, consequent on their alteration or arrest of function, enabled him now to meet disease with remedies whose physiological action was in direct antagonism to the morbid alterations he had to treat. In this he could not fail to observe how the knowledge of the physiology of drugs simplified his art, and brought medicine day by day nearer to the goal it must ultimately attain of being an exact science. What would be the surprise of a practitioner of the old therapeutic school if he could rise from his tomb and see his most cherished remedies, his Lares and Penates, shattered and broken, the iconoclasts rushing in on all sides and from every country to share in the work of demolition. Still more would he be astonished to see a joint or an abdominal cavity laid open fearlessly by the surgeon of to-day, under an antiseptic atmosphere, or a chest tapped by aspiration, and fluid that pressed injuriously upon the lungs or heart withdrawn, with none of the untoward results of a bygone surgical time, when such operations would be looked on as certain to lead to a fatal result. The lecturer concluded by urging on students the cultivation of the senses in the investigation of disease, as well as of a wholesome scepticism in the value of vaunted remedies; also of patient courtesy in meeting the whims and petulance of those who might come under their medical care.

MEATH HOSPITAL.

THE lecture introductory to the session was delivered on the 3rd inst. by Professor RAWDON MACNAMARA. Speaking of medical students in general he said that as a class they came to them for the first time free from restraint, fresh from school, young, full of animal spirits, and perfectly unaccustomed to the temptations of a city life. Rough, selfish, thoughtless, unsympathetic, they might appear to be on their first entrance within the wards. Yet after a time, let occasion arise, who so gentle, who so thoughtful, who so sympathetic, who so self-denying, who so tender hearted. What a wonderful transformation! a transformation only, as he believed, to be seen in their ranks, and only to be accounted for, reverentially let it be said, by the Divine afflatus breathed upon their class through the person of the patron of their order, St. Luke the Evangelist.

As to the manner in which they should approach the discharge of their duties, he might be permitted to say a word. The regulations of their several licensing boards left nothing for him to say as to their preparatory studies beyond this, that in the majority of instances such regulations took upon such studies as being final. A more unhappy result could not be well conceived. He could well conceive a test examination as to whether the young man was fit at all to commence medical study—this of an elementary character, necessarily so; but of a final character, no; and he could not too strongly express his view that the only true way to establish their profession on a solid basis was to require some such academic position as would be evinced by an equivalent at all events to a degree in Arts, as conditional to admission within their portals. It might be utopian to look forward to this outcome of medical legislation, but nevertheless it was that for which they should agitate in the true interests of their profession. It had been well asserted that the gateways of knowledge were five in number—"seeing, hearing, tasting, feeling, and smelling." In pursuit of the study of their profession each of those gateways must be successfully stormed if they would be successful practitioners. Individually each one or other of these might be misleading, collectively they were proof strong as Holy Writ. The lecturer proceeded to bring forward arguments in favour of vaccination, and expressed his belief in the germ theory, but would not advocate the use of the carbolic acid spray. He concluded as follows:—"My idea is that to constitute a perfect physician a rare combination is essential—wisdom and experience. A man might be very wise, yet, lacking experience, will be but a poor practitioner; in like manner he may have great experience, yet, wanting wisdom, he never will carve for himself a niche in the temple of science. Inseparable from wisdom is truth. Without truth all is vain in science; for in it lies the foundation of all science. The grand characteristic of truth is its capability of enduring the test of universal experience, and of coming unchanged out of every possible form of fair discussion. Experience and wisdom, walking hand in hand, alone can add to our stock of medical knowledge. Wisdom will suggest that which experience will test, and the outcome is knowledge. But, gentlemen, above all things and before all things, bear in mind that "the fear of God is the beginning of all wisdom."

THE INTERNATIONAL HEALTH EXHIBITION.

MISCELLANEOUS FOREIGN EXHIBITS.

AMONG the exhibits grouped near the French and German courts there were many objects that suggest wide and as yet undeveloped sources of food-supply. Not that all these exhibits were worthy of encouragement, indeed some of them should not have been admitted. For instance, we do not understand why the Danes should have devoted so much space to exhibiting false colouring material for cheese and butter, and we protest against the huge stand which, like an altar, was raised in honour of butterine. If butter cannot always be obtained there is an ample supply of oil, notably the pure olive oil exhibited close at hand by Signor Carlo Gassi. Of the Scandinavian exhibits, the Swedish arrack punch has found much favour, particularly when combined with pine-apple; while the very delicate hurtle-berry preserves (*lingon vaccinium vitis idæa*), gathered in the mountainous districts of Sweden, were found most useful in arctic expeditions as a preventive against scurvy.

In the Swiss section were shown Mauchain convertible tables from Geneva, ingeniously contrived to prevent stooping; Souchard's chocolate mixed with iron—an agreeable means of taking a nutritious sweetmeat and a tonic combined; Chevallier's flexible capsules, easily swallowed, though the size of a pigeon's egg; and Dennler's Alpine bitters and iron, familiar and welcome tonics to the mountaineer. Forming part, apparently, of the Swiss section, though in no way connected with it, was the exhibit of Madeira wines by Wm. Gibson, and which are known as Blandy's Madeira. Some of these wines, especially the rich old "Boal," may prove useful for therapeutic purposes. Claiming to be equally useful for invalids is the "selected grapes" champagne of Messrs. Dupuy et Fils, Epernay. This wine is remarkably dry and free from the unpleasant after-effects which too often are found in champagne. The Amontillado from Wilson and Parker's vineyards at Xerez, imported by Messrs. C. Buswell and Co., is also a notable wine for dryness and flavour. The American Sea Foam wafer biscuits will bring out the flavour of these wines, which, with this light support, will constitute a pleasant and safe stimulant. The importers of the biscuit just mentioned, Messrs. A. W. Latham and Co., were also exhibitors of some admirably preserved fruits from California, where orchards of European origin were planted many years ago by monks. In spite of the long journey they retain their original flavour, and will supply a wholesome winter dessert. But the pine-apples from Singapore are a still greater delicacy. Instead of being preserved in sugar, they float in the juice extracted from those fruit that was too ripe for exportation; their flavour is consequently greatly intensified. Californian honey may also be recommended for its purity and admirable condition of preservation.

One or two more foreign exhibits remain on our list meriting notice, though quite disconnected with each other. The first among these were the boots shown by M. Méliès, who seeks to combine elegance of appearance with regard for the anatomical requirements of the foot. While avoiding exaggeration in shape, we nevertheless have the low flat heel, the broad sole, and room enough for the spread of the toes. Studying closely nature, it will be observed that the sole of the foot is not flat, and that treading on a hard even surface forces the foot upwards against the boot. Therefore M. Méliès has indentations on the inner surface of the sole within the boot, so that the foot retains its natural contour, and thus a high degree of comfort is secured. Again, if the boot causes pain, we lean or walk on the side furthest from the sore point; and bootmakers generally enlarge the boot on the tender side. This, says M. Méliès, is a mistake; relief should be given on the opposite side. Due observance of these principles has won for this firm medals at all the Exhibitions and the highest consideration in the trade.

Close by the exhibits of Rimmel, "whose very name smells sweet," as the late Mr. Blanchard Jerrold once remarked in one of his essays on French life, and who has contrived to perfume even coal tar soap, we found a unique display of sponges. The Greek sponges imported by Messrs. Henry Marks and Sons have taken some twenty-five years to collect. The rarity of shape and the fineness of texture constitute in certain of these sponges virtues which connoisseurs estimate at fabulously high prices, and this is not perhaps surprising, as one of the sponges in question cost the lives of two men before it could be snatched from its bed deep in the sea. When the Emperor of Germany was shot, his physicians sent all over Europe for some specially fine, cup-shaped sponges to dress his wounds, and only found what they desired among the rare collection of this firm. The bleaching of the sponge is a rather elaborate process. After immersion in muriatic acid, the sponge is soaked in a solution of permanganate of potash till it becomes almost black; but after this lime-water gives it the bright-yellow colour now in vogue. It will be seen that the process must remove all impurities.

WASHINGTON NAVAL MUSEUM OF HYGIENE.—During the past two years a museum of hygiene, organised under the Bureau of Medicine and Surgery of the Navy Department of the United States, has been in course of formation. The collection, which is extremely interesting and valuable, is in charge of Dr. J. M. Browne, Medical Director of the United States Navy. The library of the museum contains 7150 books, and also plans and drawings illustrating house and hospital construction, photographs of food and medicinal plants, and diagrams showing movements of disease. Attached to the museum is an experimental laboratory, equipped with the best apparatus for chemical, microscopical, physical, and physiological investigation, in which three hundred examinations have been made during the past year. The Bureau of Medicine and Surgery has ordered the purchase of several exhibits from the International Health Exhibition, London, among which are Mr. Francis Galton's apparatus for anthropometrical examinations, and Mr. Minnaert-Depunt's display of *sabots*.

THE LANCET.

LONDON: SATURDAY, NOVEMBER 22, 1884.

THERE can be no greater mistake than to treat lightly the complaints of English students of medicine in regard to the hardship of compelling them to go out of their own division of the kingdom for degrees, medical or other. The desire to possess a medical degree may be wise or not. We cannot stop to argue that point here. Suffice it to say that the desire exists, and is becoming felt year by year by an increasing number of men, and that there is nothing in medical graduation but what is creditable to the individual and for the public good. So long as the terms of graduation are honourable, and the universities granting degrees are ready to give satisfactory public guarantees of their work, so long, it appears to us, should students be encouraged to graduate. At the present time in England, as compared with Scotland and Ireland, medical graduation is cruelly discouraged. The universities of Scotland, on the other hand, are said to make medical graduation too easy. Those who say so, including the great majority of London teachers of medicine, aver that graduation in Scotland is not more difficult, and does not imply the expenditure of more labour or money, than passing the two London Colleges. Professor TURNER, speaking before the Select Committee of the House of Commons, gave a very strong answer, at least so far as the University of Edinburgh is concerned, to those who so lightly disparage the present system of Scotch medical graduation. He gave particulars of the enormous sums of money that have been spent in university buildings, including chemical and physiological laboratories, of the curriculum of study, and of the nature of the examinations for medical degrees, which should at least be pondered by those who despise Scottish degrees. Professor TURNER'S evidence was the more effective on this point as he spoke from experience as an examiner in the University of London as well as from the point of view of a prosperous Scotch professor. We must leave the advocates of Scotch graduation and its assailants to fight this out, freely admitting that the Scotch universities in their recent action, under the fatal and misleading guidance of Sir LYON PLAYFAIR, have given too much reason to their enemies to say that they are afraid of public tests, and jealous for the pecuniary rather than the scientific and intellectual interests of their institutions. Whatever the truth on this subject, there can be no doubt of the fact that London, with its unrivalled field for clinical study, is placed at a great disadvantage in having no teaching university from which a degree on honourable terms can be obtained by English students, and that, in these circumstances, nothing remains but for them to go elsewhere. The act that this metropolis, with its four millions of inhabitants, the centre of commerce, and the home of the principal learned and scientific Societies of Britain, should not have a teaching university, is one that only needs to be stated to excite dissatisfaction and almost indignation. The like of it cannot be found in any other country known to civilisation. It is so unreasonable and anomalous that it cannot be suffered to continue. Now, when Liverpool, Manchester, and Newcastle are to be brought under academic influence, London must assert her transcendent claim to consideration. We speak from a medical standpoint with extreme responsibility. The study of medicine in this metropolis is conducted in a way that commands the respect of every foreign nation. There is no field comparable with that of London for the purposes of clinical and scientific medicine. And from this field our students are driven, often just at the very time when they most need its advantages. Their reason for going is the desire to graduate in universities where residence is a condition of graduation, and where, too, they imagine that they will best secure their ends by studying the crotchets of the professors by whom they have finally and chiefly, though not exclusively, to be examined. This is unfair to medical students, and it is grossly unfair to medical teachers, who are thus often deprived of the legitimate credit of conducting the final steps in the education and graduation of their best students. It is also unfair to the cause of medicine itself, in London, the pursuit of which would be stimulated by the creation of a teaching university controlling general and medical education, and giving proper form to the process of medical graduation. It is gratifying to find that these views, already foreshadowed in this journal, are taking practical shape and commending themselves to men of different character and calling, men so various and yet so influential as Lord REAY, Lord Justice BOWEN, Mr. FREDERICK POLLOCK, Mr. BRYCE, M.P., Sir FARRER HERSCHELL, Professor HUXLEY, Sir JAMES PAGET, Sir JOSEPH LISTER, Sir GEORGE YOUNG, Mr. ERICHSEN, Dr. PYE SMITH, Mr. MARSHALL, Dr. ORD, Professor CROOM ROBERTSON, Dr. WACE, and others. In this list of names the existing University of London is powerfully represented. That university, to hear some speak, would seem to be hopelessly crystallised into its present form as a mere forcing and examining board, whose regulations are like the laws of the Medes and Persians, unalterable. The absolute self-satisfaction attributed to the London University is not shared by many of its most honoured medical graduates. At any rate, it is not the note of a wise and living institution capable of doing the most good and leading the academic life of London in present circumstances. We are unwilling to believe that the university is so hopelessly conceited as not to be able to meet the demand now pressed from so many sides, and even from its own graduates; it is still less credible that the medical schools and corporations of London will throw difficulties in the way of establishing a great teaching university in the metropolis. Under a well-appointed scheme, most, if not all, of these institutions would acquire new and higher functions, without being deprived of those they already possess.

A PATHOLOGICAL and clinical study which promises to exercise the best minds of the present generation for some years to come is the question of the nature of CHARCOT'S joint disease. It is mainly a question whether or not the morbid process implied by this name ought or ought not to be dethroned from the peculiar position which it at present

occupies and into which it was placed by the researches of the renowned physician whose name the disease bears. It was in the year 1868 that the arthritic disease first received public consideration. CHARCOT then published a case of joint disease alone, and it remained a question whether it was truly arthritic or merely osteoid in anatomical basis. Five years later descriptions of specimens were recorded where spontaneous fractures of the shaft of the long bones and joint mischief coexisted. By a careful study of the microscopical appearances LIOUVILLE arrived at the conclusion that the fractures and the arthritic changes were primarily due to a rarefying disease of the osseous tissues. It cannot but lead to the elucidation of truth if in the present state of affairs an attitude of scientific scepticism be adopted by all who take part in the consideration of arthritic and osseous changes occurring in patients the subject of tabes dorsalis. Whether the joint disease be merely the result of an injury in an individual who is the subject of tabes dorsalis; whether the arthritic mischief be an example of rheumatoid arthritis modified by the special conditions of the sufferer; whether the arthritic disorder be an idiopathic inflammatory process associated as a coincidence with tabes dorsalis; or whether the joint disease be as special as the name which it at present enjoys indicates—are questions which may be usefully discussed. We confess that the arguments which were urged by Dr. BUZZARD in favour of CHARCOT'S original contention seem very cogent and powerful. It is nothing to the point to argue that some physicians—e.g., Dr. MOXON—have never met with an instance of the disease in a certain number of cases of tabes dorsalis. It is to the point to assert that cases of joint mischief have occurred in which some of the joints showed changes unmistakably identified as those of rheumatic arthritis, whilst another articulation presented alterations which were equally certain, like those conditions met with in CHARCOT'S joint disease. We say it is to the point, though the interpretation put upon the facts by Dr. HALE WHITE and others may not have been arrived at by a conclusive form of argument. We cannot deny the truth of the axiom that many morbid processes may lead up to the same anatomical alterations; and dead-house experience is unable to settle the case in point. In the discussion at the Clinical Society, Dr. BUZZARD was at most pains to prove that the joint disease was not the same as rheumatoid arthritis. The rarefaction of bone with associated widening of the Haversian canals, which become largely occupied by fatty material, may be taken as the typical change which occurs in CHARCOT'S joint disease. Dr. BUZZARD suggested that some method of determining the specific gravity of the bones entering into the formation of the diseased joint might prove of value to surgeons, as helping to arrive at a diagnosis of the nature of the arthritic disease.

Suppose it were granted that CHARCOT'S disease is a specific malady and due to damage of the nervous tissues, it is by no means settled where the lesion is located. CHARCOT himself thought that the seat of the lesion was in the nerve cells of the anterior cornua, and in some cases which had lasted a long time CHARCOT and JOFFROY found that the anterior horns of grey matter were remarkably atrophied, and a considerable number of the large ganglion cells, especially those of the postero-lateral group, were atrophied or completely destroyed. In unilateral articular affections these changes were limited to the corresponding side of the spinal cord; and when the shoulder-joint was alone affected, the disease was detected only in the cervical region, and similarly, when the knee was involved, the alterations were discovered only in the lumbar region. But TALAMON failed to discover the change in recent cases of CHARCOT'S disease.

Some authors have believed that rheumatoid arthritis owned a neural cause, and certainly the muscular atrophy which attends many of these cases is very remarkable. Nevertheless, we must not forget that changes may occur secondarily in the nervous tissues as the result of damage to disease of joint, bone, and muscle. The changes which have been met with in the cord in cases of pseudo-hypertrophic paralysis have been regarded by GOWERS and others as of a secondary nature. BUZZARD has framed a hypothesis on the frequent association of gastric crises with arthropathies to the effect that some centre exists about the vagus nucleus which controls the nutrition of the osseous system. PITRES and VAILLARD have discovered inflammatory alterations in the peripheral nerves in cases of trophoneurosis associated with locomotor ataxy. PIERRET has recorded cases of locomotor ataxy in which no discoverable change existed in the spinal cord. It will thus be seen that many hypotheses may be framed to explain the occurrence of the joint disease which is believed to be special to tabes dorsalis.

As will be seen from a report which appears in another column, the Council of the Royal College of Surgeons of England held an extraordinary meeting on Wednesday to consider two very important matters—namely, first, Mr. CHRISTOPHER HEATH'S motion on the mode of electing the President and Vice-presidents; and second, the Recommendations of the Association of Fellows. Mr. HEATH'S motion, which was divided into two parts, did not aim at any more than a slight change of custom. Heretofore it has been the custom of the Council to elect annually the senior vice-president to the office of President. The two vice-presidents in their turn are chosen by rotation from among the senior members of the Council, and each usually holds office for two consecutive years. The first part of Mr. HEATH'S motion sought to make the office of Vice-president tenable for one year only. The second part of the motion did not involve any alteration in principle, inasmuch as there is nothing to prevent the Council if it choose to re-elect the same member of Council to the office of President for any number of times. Hitherto the Council has not chosen to exercise the power, but has followed the easy, convenient, and amiable practice of making the election by rotation. Even if the second part of the motion had been adopted, there would have been no guarantee that the custom hitherto followed would be departed from. On the other hand, the amendment proposed by Mr. CADGE involved an important and acceptable change of principle. It recommended that the President of the College should be elected by the Fellows. Apart from the reasonableness of this proposal, it has the further advantage of coinciding with one of the Recommendations of the Association of Fellows, and we are willing to believe that this was the only reason against its immediate adoption by the Council. It was wisely referred to the committee on Charters and Bye-laws,

to which all the Recommendations of the Association of Fellows were subsequently referred.

We shall await with interest the report of this committee on the Recommendations of the Fellows. It is scarcely credible that the Committee of the Council will again be guilty of the unwisdom of deliberately ignoring the wishes of the most active, and, we believe, the most intelligent section of the Fellows. The Recommendations of the Association may require some modification to make them workable, but it cannot be questioned that as regards their general scope and character they are calculated to promote the efficiency and the welfare of the College. There is nothing revolutionary or chimerical or Quixotic in hem. They impose no hardships on the Council, and certainly imply no degradation. They simply make the proper and reasonable demand that the eighteen thousand Fellows and Members shall share with the twenty-four Members of the Council the responsibility of managing the largest medical corporation in the world. If the Council has the political sagacity to allow the claims of the Fellows and Members, the College must acquire increased influence, importance, and stability.

There is little in the Recommendations of the Association of Fellows that has not at some time and in some form been proposed and recommended by some of the most enlightened men who have sat in the Council. Their fulfilment cannot be longer postponed. Time, circumstance, and temper are all alike propitious to a prompt, liberal, and efficient settlement.

THE Committee of Comparative Pathology, which was formed by the Pathological Society at the instigation of Mr. HUTCHINSON when President, is fortunate in having amongst its members so industrious a worker as Mr. J. B. SUTTON. The contributions which that gentleman is making to our knowledge of disease in animals show how wide is the field open for inquiry, and also throw much light upon the nature of morbid changes in man. The communication made by him to the Society at its last meeting covered a quite novel ground, for hitherto little or no attention has been paid to uterine and ovarian disease except among the domestic animals. Mr. SUTTON'S research went much beyond this, for he has examined amphibia and birds as well as mammals, and has thereby succeeded in tracing the origin of such aberrant formations as parovarian cysts low down in the scale of animal life. He demonstrated in frogs and toads the frequent occurrence of cysts connected with the Müllerian duct of the male animal—structures mostly overlooked,—and proved the homology of these cysts with like formations connected with the rudimentary right oviduct of birds and the parovarium of the human female. From this arose the generalisation of the tendency to cystic disease in structures that persist as rudiments of fœtal formations. The occurrence of such disease in birds led to an incidental reference to the connexion in birds between the assumption of male plumage by the female and the derangement of the generative organs. Amongst many points of interest were the descriptions of uterine flexions in monkeys and deer, and the explanation given of the occurrence of these deformities in some cases. The Society appreciated the shrewd remark that such flexions produced no symptoms "probably because the animals were not cognisant of their possession of a uterus." The not infrequent occurrence of fatal peritonitis in the kangaroo received an explanation from the greater liability in that animal to a form of metritis from retained secretions owing to the peculiar structure of the uterine cavity. The frequent occurrence of cystic disease of the ovary in the mare, and its relation to the rich vascular supply, was another of the matters which has been investigated with so much care, and with remarkable assiduity, by Mr. SUTTON. We regard the prosecution of this line of research as being one of the most important that the Society could well undertake. Human anatomy and morphology depend largely for their true interpretation upon the facts of comparative anatomy; and what is true of normal structure is doubtless also true of morbid, so that we may hope to learn very much in the future as to the real nature of disease in man by the scientific prosecution of comparative pathology.

Annotations.

"Ne quid nimis."

THE HEALTH OF LONDON.

THE health of London, judged by its mortality statistics, has been unprecedentedly satisfactory during the past seven weeks. It appears from the Registrar-General's weekly returns that the annual death-rate from all causes in Registration London, with its estimated population of more than 4,000,000 of persons, did not exceed 18·9 per 1000 during the seven weeks ending November 15th. The nearest approach to so low a death-rate in the corresponding period of recent years was last year, when the rate was 19·3. With regard to the mendacious report of a portion of the Paris press that cholera is epidemic in London, it may be noted that the only death during these seven weeks from disease of a choleraic character was one of an infant, aged one year, certified to have died from "choleraic diarrhœa." The total deaths in London during this period of seven weeks from all forms of diarrhœal disease were 265, which were but 15 above the average number from these causes in the corresponding period of the ten years 1874–83, after correction for increase of population. The deaths from all the principal zymotic diseases in London since the beginning of October have been, with the exception of small-pox, considerably below the average. The recrudescence of small-pox prevalence is, in fact, the only unsatisfactory feature of the recent mortality statistics in London.

PHYSICAL SCIENCE IN EDUCATION.

THE education of the mind is guided by the use of letters or words. Words are the clothing of thought, and thought, at least in its primary and purest forms, is born and bred of association with nature. Led by these considerations, one can trace the pedigree of mental training and of language to its origin as a branch of the study of physical science. Even a formed language is flexible or apt in expression in proportion to the fidelity with which it follows its first aim, which is to give true and clear voice to intellectual ideas founded on observation. Most of us will, therefore, be prepared to agree with the teaching of a pamphlet by Mr. George Greswell of Rondebosch College, South Africa, that in all school programmes the cultivation of natural science should hold a place in keeping with its relation to other studies. There can be no accurate conception of the force of words in common use even, unless the process of selection which has

been gone through in their formation—the results of careful observation of nature, its forms, their relation and analogies, out of which all speech has grown—be understood. The study of language thus carefully conducted, on the other hand, repays the learner with facility, vigour, and correctness of speech which could not otherwise be attained. The pupil may be very early initiated in the habit of observation and in the elements of natural sciences, and this need not interfere with his progress in the mastery of studies of a less immediately comprehensible kind, such as dead or foreign tongues, which have their own advantages. The truly rational understanding of even these is not lost sight of, because it is necessarily postponed to a comparatively late period of the educational course.

OVER-PRESSURE.

ON mature reflection public opinion is coming round to the conviction that Dr. Crichton Browne was right and that his traducers were wrong. We are the more assured of this, because knowing people and influential people in places of prominence and trust are striving to "burk" evidence in support of Dr. Crichton Browne, while they are apparently anxious to give all the publicity in their power to the most pitiful pleadings against him, and in destruction of the case he has set up, and, as we think, conclusively proved. It is always an excellent sign when the opposition take to suppressing evidence. *The Times* is just now doing this with great energy, and we hail the fact as a token of conscious weakness on the part of the side the leading journal has taken in this controversy. Meanwhile the oracles of skilled opinion outside the purely official circle are, with one accord, declaring in favour of Dr. Crichton Browne, and endorsing his statements. We fail to see how there can possibly be two opinions on the subject. The facts are so very clear. Without laying any particular stress on individual "cases" of injury to brain or life from over-pressure, we find more than enough evidence to place beyond the range of doubts and questionings the fact that the "code" and the "cramming" in use at the schools of compulsory national education are weapons of injury which should be taken out of the hands of officials who have shown themselves careless or incompetent in the use of them. There must be an inquiry, and it is well that there are indications of an intelligent, if not altogether willing, submission to the force of circumstances on the part of the School Board. It is to be regretted that similar sagacity—the instinct of self-protection—has not yet dawned on the consciousness of the Council of Education.

RAPID RECOVERY AFTER WOUND OF STOMACH AND PROTRUSION OF VISCERA.

A REMARKABLE case of recovery, after severe abdominal injury, is reported in the *Gazzetta degli Ospitali* (12th inst.) by Dr. Iginio Tansini. P. G——, aged forty-six, a peasant of Lodi, was admitted into the local hospital on the 10th of Aug. in a state of drunkenness, with an extensive wound in the left hypochondriac region. Through it protruded the stomach, the transverse colon, and a large part of the great omentum. On the anterior surface of the stomach was a wound an inch and a quarter long, through which the lining mucous membrane bulged, so as to fill it. That wound was closed with two fine catgut sutures. After cleaning the displaced viscera with cotton pledgets dipped in a two and a half per cent. solution of carbolic acid, reduction was attempted, but the tightness of the edges prevented it. As the wound reached upwards to the costal margin, it was extended an inch downwards, and the viscera replaced. The parietal wound was then found to measure three and a half inches. A considerable amount of blood having accumulated in the abdominal cavity, the toilette of the peritoneum was very carefully performed, with carbolised gauze soaked in warm carbolised water. The first pledgets brought away blood; and others were introduced amongst the coils of intestine, and into the pelvis, until they came away quite clean. After inserting a thick drainage-tube into the lower angle of the wound, this was closed with four deep and four superficial sutures of carbolised silk; a broad antiseptic dressing followed. Progress was uninterrupted; no fever supervened. In the first three days much bloody fluid was carried off by the drainage-tube, which was gradually shortened and definitely removed the eighth day. On September 5th, the twenty-sixth day after admission, the patient left the hospital perfectly cured.

DR. TOMMASI CRUDELI AND SOIL RECLAMATION.

PROJECTED by Caius Julius, but first set on foot by Claudius Cæsar, the desiccation of the Lake of Fucino has for centuries been at once a necessary and a difficult undertaking. The basin has no natural outlet sufficient for the surplus waters which in the rainy season and on the melting of snow descend from the mountain sides to overflow its margin and do infinite damage to the neighbourhood. Deputation after deputation from the lacustrine townships came up to Rome imploring the Senate, Republican or Imperial, to avert these devastating floods, but not until A.D. 52 did the Emperor Claudius, after eleven years' labour and the employment of 30,000 men, succeed in tapping the lake and draining it through an *emissarium* into the valley of the Liris. The ruins of this colossal work are still the admiration of the traveller, but no adequate attempt was made to restore it, much as the neighbourhood suffered in consequence, till within the last hundred years, when efforts were again and again renewed to reopen the choked-up *emissarium*. In 1852 a Swiss company obtained a concession of the lake, entitling them, if they tapped it, to all the land thus reclaimed; but the undertaking was too much for them, so their rights were purchased by Prince Torlonia, who at the cost of about £1,400,000, and with the aid of the Swiss engineer De Montricher (the constructor of the aqueduct of the Durance to Marseilles), made a more perfect *emissarium* and reduced the circumference of the lake to half an hour's walk. Even with the Prince's immense resources the work cost the lives of so many surveyors and *employés*—all of them victims to fever—that the country people used to say, "O Torlonia secca il fucino, o il fucino secca Torlonia" (Either Torlonia will dry up the fucino, or the fucino will dry up Torlonia). Some 15,000 hectares of the reclaimed land are now under cultivation and yield a good return to the farmer, but the place is haunted with malaria—a result which, according to Mr. Hare and other lovers of the picturesque, must deter the application of similar draining processes to the beautiful lakes of Thrasymene and Bolsena. With the view of studying the effects of the desiccation of the Lago di Fucino from a hygienic point of view, a commission, headed by Dr. Tommasi Crudeli and the Commendatore Simeoni, is now on the spot, and from the skill with which the first named pathologist has already conducted investigations of the same kind, the report embodying his conclusions is awaited with much interest.

THE CASE OF CASSAN v. FYFE.

OUR readers will remember that (THE LANCET, August 9th, 1884) we gave an outline of this case, in which the plaintiff complained of certain statements alleged to have been made by the defendant in reference to the treatment of a patient suffering from retention of urine and stricture. We need not here repeat the particulars. The case ended, as so many lawsuits are apt to do, somewhat tamely. The judge ruled that the statements attributed to

Dr. Fyfe had not been proved, except perhaps those made to the representatives of the committee of the club, which, being in the form of answers to questions, were to be regarded as "privileged." On these views of the law, the learned judge directed the jury to find for the defendant, but granted leave for an appeal. Mr. Cassan, having already suffered much loss of money by his attempts to get legal redress, is resolved not to spend any more over the costly and very uncertain remedy of law. Perhaps he is well advised; the more so, as the club whose medical man he is, and to which the patient whose case gave rise to this action belonged, have passed a resolution virtually confirming him in his appointment, and expressing the opinion that the charges against him were not substantiated. We congratulate Mr. Cassan on the continuance of the confidence of the club, to which we think he is well entitled, and he may be assured of the sympathy of the profession.

KUSSMAUL'S COMA.

AT a meeting of the Midland Medical Society, held at the Birmingham Medical Institute on Wednesday, Nov. 19th, Dr. Robert Saundby read a paper based on two cases of Kussmaul's coma, and pointed out that while this peculiar condition was originally described as occurring in diabetes, it is now known to exist in many other diseases, especially where there is profound blood disorder—e.g., pernicious anæmia, Bright's disease with anæmia, and in cachectic states. He discussed the etiology of the condition, rejecting as untenable the various views which ascribed the symptoms to anatomical changes, whether of the nature of coarse disease or in the shape of fat emboli, and maintained that it is most probably due to some at present undetermined form of toxæmia. With reference to this point he referred to the recent suggestion of Minkowski, that the symptoms are caused by the dealkalisation of the blood and tissues, from the constant over-production of an acid (β. oxybutyric acid) in the circulation. Dr. Saundby also pointed out the fallacies attending the ferric chloride test, as an indication of the presence of acetone, and showed a new and beautiful reaction discovered by Le Nobel, a rose-violet colour gradually developed on adding nitro-prusside of sodium and ammonia to a urine containing acetone.

THE "P. & O." COMPANY AND THEIR SURGEONS.

THE Peninsular and Oriental Steam Navigation Company on Nov. 1st issued a circular to the commanders of their ships containing certain regulations which, if persisted in, will in the long run inevitably lower the status of its medical staff. We have no fault to find with the first paragraph of the circular, which declares that "under no circumstances whatever is a surgeon to ask for a fee." It is reasonable that passengers should claim their right to professional services during the voyage for which they have contracted, so long as it does not entail degradation or injustice on the medical officers. But to the second and third paragraphs, which run as under, we enter our emphatic protest: "A passenger ..... is entitled to ask for and obtain a copy of any prescription for any medicine which the surgeon has administered to him." "It does happen that passengers in delicate health or subject to occasional attacks of illness will desire to obtain medicines which have been prescribed for them by previous medical advisers. It is our wish that every facility should be given by the surgeon to gratify this natural desire; and surgeons are requested to dispense any prescription which a passenger may ask them to make up, if they have the medicines required, so long as the prescription does not direct the employment of any powerful medicine in an unusual dose, and the passenger is not seriously ill." Conditions more derogatory than these it is difficult to conceive. Is it the wish of the company to treat a number of legally qualified members of a learned profession as though they were dispensing chemists and errand-boys? do they consider it necessary for the success of a commercial enterprise that their superior officers should be made instruments to satisfy every passing whim or fanciful ailment of voyagers? Fortunately for those most concerned, the four corners of the above-mentioned circular are within the limits of their discretionary power, and it will be easy for them to evade the provisions of such ill-advised resolutions. At the same time it is practically certain that friction will arise between the directors and passengers on the one hand and the doctors on the other; and there can be no question as to who will be the greater losers in the long run. We sincerely trust that the company will at once recognise their mistake and take steps for removing a certain cause of peril to their undertaking.

THE MICROCOCCUS OF GONORRHŒA.

THAT gonorrhœal pus contains numerous micrococci, and that inoculation of the healthy urethra with these organisms can excite a specific urethritis, are statements accepted by many since the researches of Neisser, Bockhart, and others. But according to Dr. Sternberg, of the United States army, whose bacteriological work is so well known, the evidence in support of the specific character of the "gonococcus" is inconclusive. Writing recently upon the subject, to which he has before given attention, he declares that morphologically the micrococci of gonorrhœal pus are not distinctive, but he rightly assumes that this does not imply that they have no specific qualities. One cannot but be reminded of the cholera bacillus in reading the following sentence of Dr. Sternberg's. He says that he "has repeatedly insisted upon the fact that these lowly plants often cannot be distinguished one from another by their form alone, and that specific differences may exist, as shown by a constant difference in colour, as in the chromogenes, or in physiological reaction, as in the case of pathogenic micrococci, when the most skilful microscopist can distinguish no difference in form, dimensions, or mode of grouping which would serve to distinguish one species from the other." The constancy with which micrococci are found in gonorrhœal pus suggests a relation between them and the infective virulence of the disease; but hitherto neither Dr. Sternberg nor his associates have succeeded in exciting gonorrhœa in healthy persons by inoculation of the urethra with cultures of these micrococci, which he is inclined to believe are usually harmless, but that they may acquire specific pathogenic properties under special conditions; a view, he thinks, in harmony with the successful inoculation obtained by Bockhart from cultures of the *fourth* generation, whereas his own experiments showed that inoculation of the tenth or twentieth culture is harmless. He has, however, repeated the experiment, with the ninth and eleventh cultures derived from gonorrhœal pus. The method employed was to introduce into the meatus a pledget of cotton saturated with the fluid culture, and to retain it there for two hours. The subjects of this experiment were the author, Dr. Keirle, and Mr. Wegefarth of Baltimore, and in each instance (repeated in the author's case) the result was negative. But Dr. Sternberg points out that there are always to be found at the urethral orifice, and other exposed mucous surfaces, bacterial organisms and micrococci, which are "morphologically identical" with Neisser's "gonococcus," the micrococci being far less numerous than the bacteria. "It would be well," he adds, "for every surgeon to make this demonstration for himself"; as it may well be that these organisms are septic, and liable to be introduced into the bladder by catheterism or into the wound produced by forcible dilatation of a stricture.

SUMMER DIARRHŒA IN 1884.

SUMMER diarrhœa, mainly infantile, was nearly twice as fatal in England during the three months ending September last as in the corresponding period either of 1882 or 1883. The annual death-rate from this cause last summer in England and Wales was 2·7 per 1000. In the twenty-eight largest towns it was 3·9, in fifty other great towns it was 3·2, and in the rest of England and Wales it was 2·0. It may be pointed out that the excess of mortality from this cause last quarter, compared with that which prevailed in the summers of 1882 and 1883, was greater in the small towns and rural districts than in the seventy-eight large towns. In the twenty-eight largest towns the diarrhœa rate ranged from 1·6 and 1·7 in Halifax and Huddersfield, to 6·2 in Norwich, 6·5 in Nottingham, 8·3 in Preston, and 9·1 in Leicester. Thus Leicester is again notorious for showing the greatest waste of infant life from diarrhœa last summer. Infant mortality from all causes in that town last quarter was equal to 424 per 1000, whereas the mean proportion in the twenty-eight towns did not exceed 242, the lowest rates being 161 in Bristol, 184 in Huddersfield, and 185 in Plymouth. In the fifty smaller towns the range of diarrhœal mortality was fully as wide. The rate from this disease was but 0·6 in Bath and 0·8 both in Swansea and Merthyr Tydfil, while it ranged upwards to 5·7 in Stockport, 5·8 in St. Helen's, 7·0 in Ipswich, and 8·4 in Northampton. A comparison with the rates prevailing in recent summer quarters shows still more remarkable and unaccountable variations. In Bath, Gloucester, and Merthyr Tydfil the death-rate from diarrhœa was actually lower last quarter than in the summer of 1883; whereas the rate was eight times higher in Northampton, and five times higher in Dover, Burton-on-Trent, and Ashton-under-Lyne. One of the other varying incidents of diarrhœa fatality in our large towns is the date of the greatest mortality in different towns. During last quarter, for instance, the highest death-rate from diarrhœa occurred in London in the week ending July 19th, in Leicester and Derby in the following week, in the greater number of towns in the week ending August 23rd, and in Halifax not until the second week of September. It may be hoped that the long expected report upon the causation of summer diarrhœa, which has been so long under investigation by the Local Government Board, may throw new light upon some of these now unaccountable variations in the incidence of this disease.

CONDUCTION OF PULMONARY PHYSICAL SIGNS.

A CLINICAL question which certainly deserves more attention than has hitherto fallen to its lot is the conduction of abnormal sounds produced in the lungs. The want of fuller study of this point has led, and no doubt will lead, to mistakes in topographical diagnosis; and the paper by Dr. Markham Skerritt, read at the last meeting of the Medical Society of London, will therefore be useful. The matter lies within a small compass, and ordinary care is generally sufficient to prevent mistakes. The abnormal sounds produced in a lung consolidated by pneumonia, or compressed by air or fluid, may be heard on the side of the chest opposite to that in which they originate. The same applies to physical signs of phthisis at one apex, where it not unfrequently happens that the altered quality of breathing and the râles may be distinctly heard at the other apex, which post-mortem examination reveals to be healthy. Other examples of this conduction of physical signs have been recorded, but the above-mentioned are the commonest forms. Attention to information derived from palpation, percussion, and auscultation of the vocal sounds should prevent gross error.

A WORD TO THE ENGLISH CHOLERA COMMISSION.

THE statement made by a Calcutta correspondent last week, to the effect that Drs. Klein and Gibbes were shortly about to return home after having "exploded" to their own satisfaction the views of Dr. Koch upon cholera, will be read with regret, unless they are able to produce before the world of pathological science results of a more positive character than we have yet heard of. If their instructions were limited to an inquiry into the alleged specificity of the comma-bacillus, there was no need for their being sent to India at all. Material in abundance has been unhappily too rich during the past few months much nearer home. But if, as we would fain believe, the English Commission were instructed to inquire fully into the whole subject of the origin and dissemination of cholera, to discover its real nature, and to adduce facts drawn from the largest possible area in support of the truth of their views, then we fail to see that these objects can have been attained in the comparatively brief period of their sojourn in Bombay. We are jealous of the honour of British science in this matter. If the inquiry is to issue merely in the contradiction of the bacillar doctrine, but little will have been gained, and something indeed lost to the credit of our country. In the absence of any official statements it is of course useless to argue on this point; and we would not do injustice to these gentlemen, whom we are sure will have done their work thoroughly and well so far as it may have gone. Yet we fear very much that, unless they can show that their observations have been as extensive and thorough as those of the German Commission, they will receive less attention than they deserve, and may even place a bar upon progress in the direction of cholera research.

"MORBID RELIGIOUS AFFECTION."

ATTENTION is again directed to this subject, and a protest by the vicar of St. Mary's, West Kensington, against the insidious introduction of the confessional under cover of "missions" is a timely act of watchmanlike vigilance. We reproduce from Mr. Macnaught's manifesto a passage he quotes from Bishop Wilberforce: "If sisterhoods cannot be maintained except upon a semi-Romanist scheme, with its *direction*, with its development of self-consciousness and morbid religious affection, with its exaltation of a contemplative life, its perpetual confession, and its un-English tone, I am perfectly convinced that we had better have no sisterhoods." The "development of self-consciousness and morbid religious affection" in the lives of Sisters and their proselytes is a very serious matter indeed. Looked at from the medico-psychological point, the mischief in progress among unmarried women of emotional temperament and unstable nervous centres is the cause of grave anxiety to physicians, and already they are recognising clear evidence of the propagation of morbid disturbance from nurse to patient in the hospitals. Proselytising in hospitals is by no means a process of sober conviction. What Bishop Wilberforce characterised in his letter as "the soft influence of women's souls"—if he had been a physiologist he would have said "nervous systems,"—and against which he warned his clergy, is exerting a most injurious influence on brains which are constitutionally disposed to the irregular distribution and capricious discharges of nervous force. "Morbid religious feeling" is a distinct malady. It begins either with intense emotion, rising to ecstacy, as under the excitation of the nerve centres through the ear or the eye by music or pageantry, or it may be induced by that morbid, or even vicious, mental contemplation into which the minds of women, either very young or about the age of forty, are prone to fall while gazing at the crucifix. Parents and clergymen

who have a care for the moral purity of the women under their protection should interdict the use of the crucifix peremptorily and universally. It is necessary to speak plainly on this subject, and we cannot hesitate, in the interests of mental health, to ask the heads of families and all who have influence with the female part of the community to enter earnestly into its consideration. We write thus with a feeling of responsibility and under the pressure of strong conviction.

MARKETS OVER SEWER GRATINGS.

WHAT with being compelled to breathe and gasp with his head pressed down over the open mouth of a pipe communicating directly with the sewers while he is having his head shampooed, and being in divers other ways deliberately and, as it would seem, carefully poisoned with deleterious matter from the system of closed drains of which the sanitary engineers are so proud, it would appear to be needless to feed the British householder, his wife and children and servants, on vegetables elaborately fumigated with sewer gas. This superfluous attention is, however, bestowed on the propagation of disease and bad health. As Mr. Bolton King, honorary secretary of the Whitechapel Sanitary Aid Committee, points out, "Trucks of fruit and vegetables may be often seen standing directly over these (street level) ventilators, the foul air from the sewers rising freely to contaminate food which may perhaps be served up on a West-end dinner-table." The possible destination being a *West-end* dinner-table of course makes the matter more interesting. Lives are, as we all know, much more valuable to their possessors in the West than in the East, and the only way to bring a question of reform home to anyone is to show that it affects his own personality.

ATMOSPHERIC DISSEMINATION OF SMALL-POX.

MR. POWER, in his report on the spread of small-pox in the vicinity of the Fulham Small-pox Hospital, points out that the atmospheric condition preceding the outbreak that he specially investigated was favourable for the accumulation and deposition of particulate matter in that locality. This condition he describes as damp, still, and foggy. This view is contrary to the generally received opinion, which is, if the poison is conveyed at all by air, it is carried by strong currents of wind. It is interesting, therefore, to find that Mr. Power's observations with regard to the meteorological condition most favourable to the spread of the small-pox poison has also been recorded by some of the older writers on this disease. The most remarkable instance is that mentioned by Dr. Waterhouse, Professor of Medicine at Harvard College, in which the small-pox attacked simultaneously ten persons working in the same yard at Charlestown, which yard was opposite two houses at Boston, on the other side of the river, at a distance of 1500 feet, in which were cases of small-pox. The day on which the infection took place was "one of those dull foggy days (such as commonly produce a dark day in London) when there was scarcely wind enough to blow the smoke from the tops of the chimneys; yet what wind was stirring wafted it across the river to Charlestown." Another instance, too, is recorded in which "the atmosphere was for many days loaded with aqueous vapours," there being little or no wind; yet, in spite of the prevention by a military guard of all possible communication between the small-pox hospital and the neighbourhood, the disease was conveyed a distance of "several hundred roods" from the hospital. In this case the disease must either have been conveyed through the air or by the visiting physician; yet this official before entering the building covered his head with a cap and his body with a linen gown, reaching from his neck to his ankles; he even changed his shoes; whilst on leaving he was thoroughly fumigated, &c. The question raised by Mr. Power's report as to the possibility of the aerial dissemination of small-pox to a distance considerably further than has hitherto been supposed possible, is of great importance to the community; and with a view to the possible risk thus run, we think more attention ought to be paid to methods of disinfection, which would ensure the absolute destruction of particulate matter rather than the continuance of turning the infected air of these hospitals into the general atmosphere, under the idea that dilution is sufficient to render the poison innocuous.

THEATRES.

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SUMMER DIARRHŒA IN 1884.

SUMMER diarrhœa, mainly infantile, was nearly twice as fatal in England during the three months ending September last as in the corresponding period either of 1882 or 1883. The annual death-rate from this cause last summer in England and Wales was 2·7 per 1000. In the twenty-eight largest towns it was 3·9, in fifty other great towns it was 3·2, and in the rest of England and Wales it was 2·0. It may be pointed out that the excess of mortality from this cause last quarter, compared with that which prevailed in the summers of 1882 and 1883, was greater in the small towns and rural districts than in the seventy-eight large towns. In the twenty-eight largest towns the diarrhœa rate ranged from 1·6 and 1·7 in Halifax and Huddersfield, to 6·2 in Norwich, 6·5 in Nottingham, 8·3 in Preston, and 9·1 in Leicester. Thus Leicester is again notorious for showing the greatest waste of infant life from diarrhœa last summer. Infant mortality from all causes in that town last quarter was equal to 424 per 1000, whereas the mean proportion in the twenty-eight towns did not exceed 242, the lowest rates being 161 in Bristol, 184 in Huddersfield, and 185 in Plymouth. In the fifty smaller towns the range of diarrhœal mortality was fully as wide. The rate from this disease was but 0·6 in Bath and 0·8 both in Swansea and Merthyr Tydfil, while it ranged upwards to 5·7 in Stockport, 5·8 in St. Helen's, 7·0 in Ipswich, and 8·4 in Northampton. A comparison with the rates prevailing in recent summer quarters shows still more remarkable and unaccountable variations. In Bath, Gloucester, and Merthyr Tydfil the death-rate from diarrhœa was actually lower last quarter than in the summer of 1883; whereas the rate was eight times higher in Northampton, and five times higher in Dover, Burton-on-Trent, and Ashton-under-Lyne. One of the other varying incidents of diarrhœa fatality in our large towns is the date of the greatest mortality in different towns. During last quarter, for instance, the highest death-rate from diarrhœa occurred in London in the week ending July 19th, in Leicester and Derby in the following week, in the greater number of towns in the week ending August 23rd, and in Halifax not until the second week of September. It may be hoped that the long expected report upon the causation of summer diarrhœa, which has been so long under investigation by the Local Government Board, may throw new light upon some of these now unaccountable variations in the incidence of this disease.

CONDUCTION OF PULMONARY PHYSICAL SIGNS.

A CLINICAL question which certainly deserves more attention than has hitherto fallen to its lot is the conduction of abnormal sounds produced in the lungs. The want of fuller study of this point has led, and no doubt will lead, to mistakes in topographical diagnosis; and the paper by Dr. Markham Skerritt, read at the last meeting of the Medical Society of London, will therefore be useful. The matter lies within a small compass, and ordinary care is generally sufficient to prevent mistakes. The abnormal sounds produced in a lung consolidated by pneumonia, or compressed by air or fluid, may be heard on the side of the chest opposite to that in which they originate. The same applies to physical signs of phthisis at one apex, where it not unfrequently happens that the altered quality of breathing and the râles may be distinctly heard at the other apex, which post-mortem examination reveals to be healthy. Other examples of this conduction of physical signs have been recorded, but the above-mentioned are the commonest forms. Attention to information derived from palpation, percussion, and auscultation of the vocal sounds should prevent gross error.

A WORD TO THE ENGLISH CHOLERA COMMISSION.

THE statement made by a Calcutta correspondent last week, to the effect that Drs. Klein and Gibbes were shortly about to return home after having "exploded" to their own satisfaction the views of Dr. Koch upon cholera, will be read with regret, unless they are able to produce before the world of pathological science results of a more positive character than we have yet heard of. If their instructions were limited to an inquiry into the alleged specificity of the comma-bacillus, there was no need for their being sent to India at all. Material in abundance has been unhappily too rich during the past few months much nearer home. But if, as we would fain believe, the English Commission were instructed to inquire fully into the whole subject of the origin and dissemination of cholera, to discover its real nature, and to adduce facts drawn from the largest possible area in support of the truth of their views, then we fail to see that these objects can have been attained in the comparatively brief period of their sojourn in Bombay. We are jealous of the honour of British science in this matter. If the inquiry is to issue merely in the contradiction of the bacillar doctrine, but little will have been gained, and something indeed lost to the credit of our country. In the absence of any official statements it is of course useless to argue on this point; and we would not do injustice to these gentlemen, whom we are sure will have done their work thoroughly and well so far as it may have gone. Yet we fear very much that, unless they can show that their observations have been as extensive and thorough as those of the German Commission, they will receive less attention than they deserve, and may even place a bar upon progress in the direction of cholera research.

"MORBID RELIGIOUS AFFECTION."

ATTENTION is again directed to this subject, and a protest by the vicar of St. Mary's, West Kensington, against the insidious introduction of the confessional under cover of "missions" is a timely act of watchmanlike vigilance. We reproduce from Mr. Macnaught's manifesto a passage he quotes from Bishop Wilberforce: "If sisterhoods cannot be maintained except upon a semi-Romanist scheme, with its *direction*, with its development of self-consciousness and morbid religious affection, with its exaltation of a contemplative life, its perpetual confession, and its un-English tone, I am perfectly convinced that we had better have no sisterhoods." The "development of self-consciousness and morbid religious affection" in the lives of Sisters and their proselytes is a very serious matter indeed. Looked at from the medico-psychological point, the mischief in progress among unmarried women of emotional temperament and unstable nervous centres is the cause of grave anxiety to physicians, and already they are recognising clear evidence of the propagation of morbid disturbance from nurse to patient in the hospitals. Proselytising in hospitals is by no means a process of sober conviction. What Bishop Wilberforce characterised in his letter as "the soft influence of women's souls"—if he had been a physiologist he would have said "nervous systems,"—and against which he warned his clergy, is exerting a most injurious influence on brains which are constitutionally disposed to the irregular distribution and capricious discharges of nervous force. "Morbid religious feeling" is a distinct malady. It begins either with intense emotion, rising to ecstacy, as under the excitation of the nerve centres through the ear or the eye by music or pageantry, or it may be induced by that morbid, or even vicious, mental contemplation into which the minds of women, either very young or about the age of forty, are prone to fall while gazing at the crucifix. Parents and clergymen

who have a care for the moral purity of the women under their protection should interdict the use of the crucifix peremptorily and universally. It is necessary to speak plainly on this subject, and we cannot hesitate, in the interests of mental health, to ask the heads of families and all who have influence with the female part of the community to enter earnestly into its consideration. We write thus with a feeling of responsibility and under the pressure of strong conviction.

MARKETS OVER SEWER GRATINGS.

WHAT with being compelled to breathe and gasp with his head pressed down over the open mouth of a pipe communicating directly with the sewers while he is having his head shampooed, and being in divers other ways deliberately and, as it would seem, carefully poisoned with deleterious matter from the system of closed drains of which the sanitary engineers are so proud, it would appear to be needless to feed the British householder, his wife and children and servants, on vegetables elaborately fumigated with sewer gas. This superfluous attention is, however, bestowed on the propagation of disease and bad health. As Mr. Bolton King, honorary secretary of the Whitechapel Sanitary Aid Committee, points out, "Trucks of fruit and vegetables may be often seen standing directly over these (street level) ventilators, the foul air from the sewers rising freely to contaminate food which may perhaps be served up on a West-end dinner-table." The possible destination being a *West-end* dinner-table of course makes the matter more interesting. Lives are, as we all know, much more valuable to their possessors in the West than in the East, and the only way to bring a question of reform home to anyone is to show that it affects his own personality.

ATMOSPHERIC DISSEMINATION OF SMALL-POX.

MR. POWER, in his report on the spread of small-pox in the vicinity of the Fulham Small-pox Hospital, points out that the atmospheric condition preceding the outbreak that he specially investigated was favourable for the accumulation and deposition of particulate matter in that locality. This condition he describes as damp, still, and foggy. This view is contrary to the generally received opinion, which is, if the poison is conveyed at all by air, it is carried by strong currents of wind. It is interesting, therefore, to find that Mr. Power's observations with regard to the meteorological condition most favourable to the spread of the small-pox poison has also been recorded by some of the older writers on this disease. The most remarkable instance is that mentioned by Dr. Waterhouse, Professor of Medicine at Harvard College, in which the small-pox attacked simultaneously ten persons working in the same yard at Charlestown, which yard was opposite two houses at Boston, on the other side of the river, at a distance of 1500 feet, in which were cases of small-pox. The day on which the infection took place was "one of those dull foggy days (such as commonly produce a dark day in London) when there was scarcely wind enough to blow the smoke from the tops of the chimneys; yet what wind was stirring wafted it across the river to Charlestown." Another instance, too, is recorded in which "the atmosphere was for many days loaded with aqueous vapours," there being little or no wind; yet, in spite of the prevention by a military guard of all possible communication between the small-pox hospital and the neighbourhood, the disease was conveyed a distance of "several hundred roods" from the hospital. In this case the disease must either have been conveyed through the air or by the visiting physician; yet this official before entering the building covered his head with a cap and his body with a linen gown, reaching from his neck to his ankles; he even changed his shoes; whilst on leaving he was thoroughly fumigated, &c. The question raised by Mr. Power's report as to the possibility of the aerial dissemination of small-pox to a distance considerably further than has hitherto been supposed possible, is of great importance to the community; and with a view to the possible risk thus run, we think more attention ought to be paid to methods of disinfection, which would ensure the absolute destruction of particulate matter rather than the continuance of turning the infected air of these hospitals into the general atmosphere, under the idea that dilution is sufficient to render the poison innocuous.

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It is quite evident that Dr. Whamond followed the spirit, if not the letter, of the law, and that his certificate was a truthful one, and possibly said as much as he was justified in saying of the case at the time he issued it. Every practitioner knows that even a very few hours may clear up much that is obscure as to the nature of a case of continued fever. Therefore there can be but little doubt that the Jarrow Corporation was ill-advised in setting the machinery of the law in motion in Dr. Whamond's case, and that such prosecutions, even in the interests of sanitary progress, are to be much deprecated.

CLINICAL SOCIETY OF LONDON.

THE members of the Clinical Society had good reason to congratulate themselves on their last meeting. In point of numbers the occasion was almost unprecedented, a circumstance which cannot be accounted for by any very special reason. It is true that the number and interest of living specimens may have been an additional attraction. But it must be confessed that the meetings of the Society have of late been very well attended; so that we are inclined to believe that the plenitude of the recent gathering was but a further expression of the popularity of this important Society. Elsewhere will be found a full report of the proceedings, and an article bearing on the subject which perhaps most interested the members assembled. Dr. Stephen Mackenzie's paper was discussed with a fulness warranted by its value. A large specimen of spina bifida in a girl aged nineteen was exhibited by Mr. R. W. Parker for Dr. McLean of Portland.

CONGENITAL DISLOCATION OF THE HIP.

THE address at the opening meeting of the Surgical Section of the Academy of Medicine in Ireland, held last week, was delivered by Mr. Bennett, President of the Section. His discourse mainly turned on the subject of congenital dislocation of the hip-joint, and he referred to the various theories put forward to explain the cause of the deformity. He proved from the history of a specimen exhibited to the members that attributing the dislocation to a result of abnormal labour, as laid down in one of our most modern text-books, was erroneous. As regards treatment, he was of opinion that the only chance of doing any good was in the first few years after birth, as afterwards the changes which took place in the structures involved were such as to prevent a successful result from any operative measures that might be adopted.

SPIKED WIRE FENCES.

A CORRESPONDENT of *Land and Water* calls attention to the fact that farmers are putting up "miles of wire fencing, of which the top wire is studded with sharp spikes," and complains of the injury likely to result therefrom to man and beast. We can add to this testimony that in some cases not only the top but all the wires are spiked; surely a most discreditable and indefensible precaution. That people should be prevented from trespassing or punished for so doing is quite right and proper, but there can be no justification for part of that punishment taking the form of immediate personal injury. The possibility too, or rather probability, of the infliction of utterly wanton and needless injury and pain on such unconscious trespassers as dogs, sheep, horses, &c., is dreadful to contemplate. This barbed fencing is most aggressive, objectionable, and unnecessary; its aggressiveness is amply demonstrated by the fact of a lady finding it impossible to use a stile placed for foot passengers without getting her dress torn to rags. There is no good reason whatever why property should be enclosed by means of such a *chevaux de frise*. We trust, therefore, that owners of land will find means of replacing this dangerous fencing, or at all events of removing the unwarrantable spikes, which should be relegated to the limbo of spring guns and other man-traps.

THE PACINI MEMORIAL.

ON the 14th inst., in the Reale Arcispedale di Santa Maria Nuova, in Florence, a committee for the purpose of commemorating the life and labours of the late Dr. Filippo Pacini held its first meeting. The president was the Commendatore Professor Giorgio Pellizzari; the secretaries, Dr. Stacchini and Signor Squarcialupi; and the treasurer, Cavaliere Cosimo Franceschi, superintendent of the hospital. It was resolved to issue an appeal to the country; while a vote of thanks was conveyed to the Society of Hygiene for having initiated the project, and to his Excellency the Minister of Public Instruction for placing at the committee's disposal the sum of 500 lire (£20) *ad hoc*.

ACTION FOR MEDICAL ATTENDANCE.

IN the action Cass *v.* Fitzgerald, in which the plaintiff, a medical practitioner, sought to recover £96 for medicine and attendance upon a lady who, it was said, was at the time living with the defendant as his wife, the jury were unable to agree upon a verdict. They added, however, that they were quite unanimous that there was no imputation whatever upon the character of Mr. Cass.

THE ÆSCULAPIAN SOCIETY.

THIS North London Society has been in existence since 1880, and has now issued a small volume giving briefly an account of the proceedings of the monthly meetings. A glance through the pages of the volume shows the number and variety of subjects discussed, as well as the interest which the several papers evoked.

HAVING carefully looked through the drawings of the new additional buildings about to be erected at the St. Pancras Workhouse, the specifications to be observed in the construction of the floors, and the providing and fitting of the water-supply and fire extinguishing arrangements, Captain Shaw has issued a report, addressed to Mr. Bridgman, F.R.I.B.A., the architect, in which he states that he notes with pleasure the evident care and attention that have been bestowed upon the smallest details likely to assist in securing to the building an immunity from fire, or, in the event of fire occurring, preventing it extending to serious dimensions, together with the ample measures provided for its extinction.

WE are sorry to announce the death of Mr. Henry Renshaw, for so many years known as one of the leading medical publishers. Mr. Renshaw was one of the first to see the utility of publishing a condensed form of practical information for medical students and busy practitioners, in which enterprise he met a large success. Among the valuable series of manuals he published, perhaps Druitt's Surgery was the best known. Tanner's Practice of Medicine, Fox on Skin Disease, Clarke's Surgery, and Green's Pathology are only a few of the many popular works he brought out. Mr. Renshaw had been ailing for some months past, and finally succumbed to an attack of angina pectoris on Nov. 18th, in his seventy-ninth year.

THE Tasmanian Parliament has agreed to a motion declaring that some steps should be taken to provide for the proper education of midwives.

IN a paper recently read before the Paris Academy, M. A. Hureau de Villeneuve urged the importance of the use of distilled water for drinking purposes, and suggested that the price might be greatly reduced by obtaining it from steam engines at work in mills. He considers it is neither unpalatable nor difficult to digest; that it generally contains a sufficient quantity of air, and that the absence of calcareous salts is rather an advantage than a drawback.

ON Monday evening next, Sir Andrew Clark, Bart., M.D., will give a "Medical Talk" to young men in the Lecture Hall of the Young Men's Christian Association. The Earl of Aberdeen will take the chair at eight o'clock. The subject will be "Considerations respecting the Constitution of Man, and its Relation to Health, Knowledge, and Religion."

THE subject of Nephrectomy will be brought before the Royal Medical and Chirurgical Society on Tuesday next, Nov. 25th, by a paper from Mr. Henry Morris. An interesting discussion is expected to follow, in which, besides others, Sir Andrew Clark, Sir Henry Thompson, Mr. Savory, Mr. Bryant, and Mr. Hulke will probably take part.

IT is reported from Dongola that eight cases of small-pox have occurred among the troops forming the Nile Expedition. Every precaution against the spread of the disease has been taken, and the camping grounds where it first appeared have been changed.

DR. PARSONS, Local Government Board Inspector, has recently paid another visit to Kidderminster to supplement his previous inquiries regarding the typhoid epidemic. The number of deaths from the fever has exceeded ninety, and fresh cases continue to occur.

MR. JAMES WYLD, of Charing-cross, has issued a new map of Egypt, the Nile, and the Soudan, which will be found useful for reference in tracing the movements of the British forces sent for the relief of General Gordon.

IN consequence of the epidemic of measles in the city the Aberdeen School Board has decided upon the closure for a fortnight of the infant departments of all the elementary schools.

AT the meeting of the Medical Society of London on Monday next an important and interesting discussion on Anæsthetics is anticipated.

M. PASTEUR is reported to be about to proceed to Rio Janeiro in order to study the yellow fever.

DR. HUMPHRY has been re-elected representative of Cambridge University on the General Medical Council.

IRISH POPULATION STATISTICS.—From a supplement recently issued to the seventeenth report of the Registrar-General for Ireland we learn that the total number of births during the ten years 1871-80 was 1,402,277, the annual average being 140,228, or at the rate of 26·5 per 1000. The total deaths registered during the same period was 966,745, or at the average annual rate of 18·3. The total number of emigrants who left Ireland in the decade was 623,933, being an average of 62,393, or 11·7 per 1000 of the population per annum. A decrease, therefore, of 188,401 took place during the ten years, the real decrease up to the date of the last census (April, 1881) being 237,541.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN extraordinary meeting of the Council was held on Wednesday last to consider, first, Mr. Heath's motion respecting the election of the President and Vice-Presidents, and, next, the Recommendations of the Association of Fellows.

In the unavoidable absence of Mr. Heath the first part of this gentleman's motion was moved by Mr. Thomas Smith, and seconded by Mr. Allingham—viz.: "That the office of vice-president be for the future held for one year only by the same person."

It was put to the vote, when six voted for and fourteen against. The names having been taken, it was found that the supporters of the motion were Messrs. Holmes, Cadge, Smith, Sir William Mac Cormac, and Messrs. Allingham and Lawson, while those who voted against it were Mr. Erichsen, Sir Spencer Wells, Messrs. Marshall, Savory, Lund, Wood, Power, and Hutchinson, Sir Joseph Lister, and Messrs. Bryant, Hulke, Croft, Hill, and Durham. The President did not vote; Sir James Paget and Messrs. Heath and Sydney Jones were absent.

The second part of Mr. Heath's motion was moved by Sir William Mac Cormac, and seconded by Mr. Lawson—viz.: "That the president be elected annually by the Council from among its members, and that no president hold office for more than five consecutive years."

To this Mr. Cadge moved and Mr. Holmes seconded an amendment—viz.: "That the president be elected annually by the Fellows in a manner hereafter to be agreed on by the Council." Upon this the original motion was withdrawn and the amendment put as a substantive motion, whereupon Mr. Marshall moved and Mr. Wood seconded an amendment—viz.: "That the subject of the election of president be referred to the Committee on Charters and Bye-laws, to report thereon to the Council." This was ultimately carried.

After some discussion, it was resolved, on the motion of Mr. Marshall, seconded by Mr. Holmes, "That the communication of the Association of Fellows and the accompanying Recommendations be referred to the Committee on Charters and Bye-laws to report thereon to the Council." This Committee, it may be stated, consists of Sir James Paget, Mr. Erichsen, Sir Spencer Wells, Messrs. Marshall, Forster (President), Savory (senior Vice-President), Holmes (junior Vice-President), Lund, Cadge, and Smith.

ENTERIC FEVER AND MILK INFECTION AT ST. ALBANS.

THE report on this epidemic is made to the Local Government Board by Mr. Shirley Murphy, one of the officials of the Board in connexion with the Calf Vaccine Station. The population of the city is estimated by Dr. Saunders, medical officer of health, as 11,326; of 2500 inhabited houses 1890 are supplied by the St. Albans Water Company from deep wells, some two-thirds having a constant and the remainder an intermitting service, the same supply being delivered to all alike; the remaining 610 houses have private wells. St. Albans has a new system of sewers, and out of the 2500 houses, 1230 were connected with them at the beginning of the outbreak, the proportion of houses so connected to those unconnected being much the same in all the twelve portions into which the town is divided for sewering purposes. In the ten years 1874–83 only ten enteric fever deaths were registered in the city. Including for the purposes of the inquiry some 60 houses outside the borough with those in the city, it appears that on the whole area eight cases of enteric fever occurred during the first three months of the year, one of them taking place at a farm to be referred to. During May 86 cases occurred within the city boundary and 7 without the boundary; the number of houses infected during the same period being 58 and 4 respectively. In June 34 cases occurred within and 4 without the city, in 24 and 4 houses respectively. As regards any connexion between the disease

and the sewers, it appears that 34 of the affected houses or 2·7 per cent. were connected with the sewers, and that 48 or 3·7 per cent. were not so connected, and it was otherwise ascertained that the fever could not be related to any special condition of house drainage. Of the 82 houses, 74 had the company's water, 7 were supplied from wells, and the supply used by the remaining one is not known—that is to say, of the houses having the company's water 3·9 per cent. were attacked, and of those resorting to wells 1·1 per cent. But owing to the preponderance of one or another supply in different parts of the town it was soon seen that the difference between 3·9 and 1·1 had no particular importance in so far as the cause of the disease was concerned.

Dr. Saunders had at an early stage identified the disease with a certain milk-supply. The milk from the suspected farm was distributed by the dairyman himself and by seven different milk-vendors; and the customers of these various persons having been ascertained, it appeared that of 396 houses in and out of the city 86, or 21·7 per cent., were invaded during May or June; and during the same period there were but 4 houses out of the 90 invaded concerning which it could not be definitely stated that the milk came from the source in question; and as regards two of these the milk was admitted to have come from "various sources." In the city itself 21·1 of the houses supplied from this dairy farm were affected, and only 0·14 of the remainder. After dealing in detail with the seven vendors who sold this dairy farmer's milk, Mr. Murphy states that a maidservant who came to the farm in October, 1883, and who remained there till Jan. 24th, 1883, sickened with enteric fever two days after leaving. Another maid came on May 26th, and she sickened on June 10th. Some thirty visitors had also been at the farm, and of 25 inquiry as to illness was made, the result being that 2 were ascertained to have been attacked; but one of these drank milk at the farm in May, and the other received milk from there at about the same date. Some of the milk was also sent to London; but in the hands of one vendor it was so used that it could not be identified and traced to customers; in those of another, six cases of enteric fever were heard of. Besides which an undue prevalence of the same disease was traced amongst persons in St. Pancras who were receiving their milk from the same source. In Islington, too, 15 per cent. of the houses supplied with this milk were attacked, whilst all others in the area which was subjected to investigation escaped. In short, both in and around St. Albans, and in London, there was a special incidence of enteric fever upon the consumers of this milk.

What gives such special interest to this epidemic is the fact that it was milk from the same farm that was the vehicle of distributing the infection of enteric fever during the serious outbreak of that disease which occurred in North London in 1883. It therefore became very important to learn, if possible, if any conditions about the farm could have led to it. Under these circumstances, the healthiness of every cow that had been milked for months past, the quality of their food and water, the health of *employés* both permanent and temporary, were investigated with much minuteness, but no clue to the disease could be obtained. After the 1883 epidemic a dangerous relationship between a well 100 ft. deep and a cesspit was brought under notice, the roots of a sycamore tree having been found to travel from one to the other. The cesspit had since been cleaned out and filled in, and on digging a trench about the privy no indication of soakage towards the well could be discovered. The inquiry, exhaustive and complete as it was, failed both in Mr. Murphy's and in Dr. Saunders' hands, in discovering any fresh source of contagium to account for the 1884 outbreak. But typhoid fever had not been thoroughly absent from St. Albans since the 1883 outbreak. During the closing months of the year five houses were invaded, four of which received their milk from this farm. Then, again, all the cases in the four houses attacked during the first quarter of this year, as also the servant girl at the farm itself, used this milk; and these facts, taken together with the 1883 epidemic on the one hand and the epidemic of May to June, 1884, on the other, go to point to some undiscovered source of infection which remained comparatively quiescent during some eight or nine months, and then, to use Mr. Murphy's words, gave rise to an intenser infectiveness, of which the outbreak in May and June was the result. Mr. Murphy's closing words repeat in effect what we have on several occasions strongly urged; and, written as they are in connexion with another fatal outbreak due to milk infection, they deserve to be specially noted. "Seeing that an infective quality can reside in milk produced under circumstances of reasonable cleanliness and healthiness, it comes to be of importance that English people should adopt, as their invariable rule in the use of milk, the custom, usual among Continental nations, of boiling all milk as soon as they receive it into their houses." Mr. Murphy's report deserves careful perusal, and we are glad to note that it is placed on sale as an official publication.

THE PROGRESS OF CHOLERA.

BETWEEN November 4th, when the first official announcement of the existence of cholera in Paris was made, and the 17th, the number of persons attacked concerning whom information had been obtained was about 1250, and the deaths during the same period numbered 617. Probably the records as to non-fatal cases are very untrustworthy, otherwise the rate of mortality would be heavy, and this it has been asserted is not the case. Since November 10th, on which day the deaths numbered 98, there has been a diminution in the mortality, which has gradually fallen to about 30 a day, and the proportion of deaths to attacks has also undergone a very considerable reduction. That such a result should take place at an early stage of an epidemic appears to indicate that a further abatement is in prospect, and that the epidemic may be extinguished before long. It is sincerely to be hoped that, whether this is the case or not, no efforts will be spared, either in Paris or in other places that have been infected, to secure the removal of all conditions favouring nuisance in connexion with sewers, drains, cesspools, and accumulations of refuse, for it is these conditions that tend to favour the retention of the contagium, and which will enable it again to assume an active state when the warmer weather returns.

Rumours of cholera come also from other localities. In Algeria it is certainly not extinguished; odd cases appear to recur in the south of France; and news also comes of suspicious deaths in the provinces of Valencia and Toledo, and of the establishment of a cordon of Spanish troops round a town in the former province. Further statements have been made as to cholera in the Channel Islands, and even in London, but these are absolutely without foundation. As regards our own country, it is satisfactory to find from the recent speech of the President of the Local Government Board in Parliament that further measures are intended by his department with respect to the preparedness of ports to deal with imported cases. Our system of inspection and isolation requires for its efficient working that all sanitary authorities shall have the means of regular inspection and of isolation available, and as regards the port sanitary areas this is of importance.

OFFICIAL RETURN OF CHOLERA DEATHS IN PARIS.

The official weekly return on the statistics of the Paris municipality for the week ending the 12th inst. reports that 375 deaths from cholera were recorded in that period, raising the annual death-rate of the city to 32·8 per 1000, from 23·4 in the previous week. It is stated that the epidemic broke out on the 4th inst. simultaneously in two arrondissements, and afterwards spread in such a manner, that during last week only one of the twenty arrondissements escaped without a death. It is pointed out that the fatality of the disease has in the main been confined to the dirtiest streets and to the most uncleanly and poverty stricken of the population. With regard to some of the localities that are now suffering, it is stated that they have invariably suffered in previous epidemics, and that many of the worst streets are still in much the same condition as they were in at the beginning of the century. An especially severe outbreak occurred in an asylum for the aged, under the charge of a religious order, in the Avenue de Breteuil. Many of the other streets attacked have long been known as the hotbed of other zymotic diseases. In order to prove the slight individual risk of being attacked, the return gives a little table to show that only 14 per 100,000 of the Paris population died last week from cholera. The force of the epidemic may be better appreciated by us from the following facts:—The 375 deaths from cholera in Paris last week were equal to an annual rate of 8·6 per 1000 of the popula-

tion, and an equal rate of mortality in London would have there given 660 deaths. As regards the ages of the cholera victims, the small proportion of fatal cases among children is especially noteworthy; only 35 deaths occurred under fifteen years of age, 80 between fifteen and thirty-five years, 172 between thirty-five and sixty, and 88 among persons aged upwards of sixty years. The disease was far more fatal among men than among women; the deaths of males being 235, while those of females were only 140, or 17 males to 10 females. In the more recent cholera epidemics in England, in 1854 and 1866, the deaths of females exceeded those of males. The excess of males and of elderly persons among those dying from cholera in Paris last week was probably due in a great measure to the fatality of the disease in the asylum referred to above.

THE SMALL-POX HOSPITAL CASE.

THE action brought by Mr. Fleet, a property owner at Darenth, against the Metropolitan Asylums District Board to enforce the closure of the Darenth Small-pox Convalescent Camp, on the ground that there was danger of infection being carried from the camp to the plaintiff's property, has been concluded, and judgment has been delivered for the defendants. Mr. Justice Pearson, before whom the action was heard, in delivering judgment, said, assuming for the purposes of the judgment that it was possible that infection could be conveyed through the air, that was not a sufficient reason to grant an injunction in this case. He must, to do that, go much further, and come to the conclusion that it was probable that it could be so conveyed, and he was not able to arrive at that result. He said it had been argued that upon the balance of evidence it must be concluded that small-pox hospitals are the centres of infection, and because that was so in the case of the London hospitals it was so with this hospital; but the probable causes why in London there should be such danger did not apply to a hospital situated and managed as this was. In an early issue we shall take an opportunity of noticing this case at greater length.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Oldham Urban District.—Dr. Bryden Hill speaks with satisfaction of the reduction of the general death-rate, and also of the zymotic rate, during 1883, the former being 21·9, and the latter 1·5 per 1000 inhabitants, and he points out that the great efforts which have been made by the sanitary authority are now bearing fruit in the saving of many lives. Thus, compared with the average for the past ten years, there was in 1883, in a population of about 119,000, a saving of 500 lives, and this number includes no less than 333 lives which would otherwise have been sacrificed to zymotic disease. As regards this latter class of disease, much of the result is attributable to the joint working of the compulsory notification of infectious diseases and the isolation arrangements provided at the Westhulme Hospital. But there is great reason for regret that so large an infant motality still reigns in the borough. Out of every 100 deaths 40 were of children under five years of age, and 25·5 under one year. Or, to put the case otherwise, out of every 1000 children born alive 159 were removed by death before attaining the age of twelve months. Such a mortality is certainly in part preventable, and the various conditions bearing upon it are considered in the report. Notably, reference is made to the neglect due to mothers working at mills, the consequent improper feeding, the conveyance of children through the streets early on frosty mornings when they have only just left their warm beds; and the need of the crèche system is strongly urged, in order to cope with some of the evils. Sanitary work progresses satisfactorily; and as regards infectious diseases, it is worth noting that 5317 articles were either disinfected or destroyed, that 1072 rooms and 358 houses were cleansed and disinfected, and that 135 cases were admitted into the Westhulme Sanitary Hospital during the year.

Runcorn Rural District.—The death-rate was 17·5 per 1000 during 1883. Certain instances of choleraic diarrhœa led to a careful examination of the sanitary circumstances of this district, which lies so near to the port of Liverpool, and to a report on the filthy state of the Kingsley brook, which, it is believed, is sometimes resorted to for drinking purposes. Certain preparations were also made as to the mooring of any infected vessels, and it was resolved to purchase an iron hospital to be put up in case of need. The removal of cases of typhoid to the workhouse hospital, and the spread of scarlet fever, show that this need has long since arisen, and it is to be hoped that if the iron hospital has been purchased a site has also been obtained for it, for more than once such temporary hospitals have failed at a critical moment for lack of a site.

Birkenhead Urban District.—This borough, with an estimated population of 88,700, had in 1883 a birth-rate of 35·45 and a death-rate of 19·95 per 1000. The latter is calculated without corrections for deaths at sea &c.; and only seven of the cities and boroughs quoted by the Registrar-General had a lower rate. The rate of infant mortality was 155 under one year per 1000 births. Under the section of the Local Act of 1881, relating to the notification of infectious diseases, 874 cases were notified to the sanitary authority; 789 cases were notified by medical practitioners, 69 by school attendance officers, 6 by occupiers, and 10 by the registrars. But having regard to the relation which these numbers bear to the registered mortality from the causes specified, Mr. Vacher says that there is no avoiding the conclusion that a certain residuum of cases still escape unreported. On the whole, the zymotic death-rate was 1·28 less in 1883 than the mean of the zymotic death-rate during the five preceding years, and this included an outbreak of typhus which was checked by isolation and disinfection; and to the working of compulsory notification is attributed in part both this result and the lowering of the zymotic mortality. In view of the increasing demand for isolation in hospital, the villa hospital, which was one of the first established, has been found inadequate. A site capable of containing two pavilions of ten beds each has been appropriated. One pavilion is already erected, and it is hoped that the other may soon be put up. In view of this anticipation we would point out how in some respects the second pavilion may be made an improvement on the first. Two of the end beds in the existing building are in a corner, the beds touching the wall. Corners in infectious wards should always be lighted by a window, and every bed should stand in a wall-space between two windows. Besides which, in calculating floor area per bed, the amount of wall space is the most important element, for no excess of space down the centre of the ward can possibly compensate for diminution of the area where the patients' heads lie, and where they hence take in the greater part of the air they breathe. Every bed should stand in the centre of its own 12 ft. of wall space. Then again, a single fireplace for a ward measuring nearly 50 ft. in length must produce very unequal heating, and if it succeeds in adequately warming the distant end of the ward it must certainly give out an excessive heat near the fireplace. There are few modern infectious hospitals where some 25 ft. have not been regarded as the maximum length of ward for a single fireplace; and if two open fireplaces are not provided, one at either extremity, a central stove having two open fireplaces facing either end of the ward is, as a rule, provided. The solid wall, which is shown in the diagram between the two waterclosets, implies a partition, which prevents cross ventilation by means of the two closet windows. As a rule, a wooden partition, some 7 ft. high and not touching the ground, is preferred with a view of securing the requisite cross current. In the main the hospital is well designed, and will serve a useful purpose.

St. George, Hanover-square.—There is a continually decreasing death-rate in this parish, and the rate for 1883 was only 15·7 per 1000—that is to say, it was less than in any of the large towns of England. It must be remembered, however, that the district contains a specially selected population, and hence, forming as it does a picked portion of a large city, it can hardly be compared with any town or city as a whole. A large portion of the report is merely statistical, and apart from a summary supplied by the inspector of nuisances, it contains but little information of the sanitary circumstances of the district.

St. Mary, Newington.—Dr. Iliff's annual report forms a part of a general report on the proceedings of the vestry. In 1883 the death-rate on 110,000 people in this parish was 23·1 per 1000, but the conditions leading to preventable death amongst this large population are only very incidentally referred to. There is some information as to certain drain defects, a summary of hints issued in anticipation of cholera, a reference to legislation which was proposed last session, and some general statements as to the housing of the poor; but, like many other London reports, this one but very imperfectly resembles the excellent annual reports which come from many of our other populous cities and boroughs.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5850 births and 3505 deaths were registered during the week ending the 15th inst. The annual death-rate in these towns, which had been equal to 20·6 and 21·3 per 1000 in the two preceding weeks, declined again last week to 20·9. During the first seven weeks of the current quarter the death-rate in these towns averaged 20·7 per 1000, against 21·3 and 20·5 in the corresponding periods of 1882 and 1883. The lowest rates in these towns last week were 14·0 in Huddersfield, 14·8 in Brighton, 17·9 in Derby, and 18·4 in Bradford. The rates in the other towns ranged upwards to 27·8 in Bolton, 27·8 in Preston, 28·6 in Newcastle-upon-Tyne, and 30·0 in Wolverhampton. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 379 and 392 in the two preceding weeks, declined last week to 369, and were fewer than in any previous week of this year; they included 73 from scarlet fever, 63 from measles, 57 from "fever" (principally enteric), 56 from diarrhœa, 52 from whooping-cough, 39 from small-pox, and 29 from diphtheria. No death from any of these principal zymotic diseases was recorded last week either in Brighton, Plymouth, or Wolverhampton; whereas they caused the highest death-rates in Newcastle-upon-Tyne, Bolton, and Cardiff. The greatest mortality from scarlet fever was recorded in Sheffield and Newcastle-upon-Tyne, from measles in Bolton and Cardiff, from "fever" in Leeds, Preston, Portsmouth, and Derby, and from whooping-cough in Oldham and Sunderland. The 29 deaths from diphtheria in the twenty-eight towns included 17 in London, 4 in Liverpool, and 2 both in Norwich and in Newcastle-upon-Tyne. Small-pox caused 56 deaths in London and its suburban districts, 2 in Birkenhead, and 2 in Sunderland. The number of small-pox patients in the metropolitan asylum hospitals, hospital ships, and convalescent camps, which had been 580 and 669 on the two preceding Saturdays, further rose to 749 at the end of last week; 199 new cases were admitted to these hospitals during last week, against 101 and 233 in the two previous weeks. The Highgate Small-pox Hospital contained 41 patients on Saturday last, 20 new cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had increased in the eight preceding weeks from 159 to 357, further rose last week to 370, but were 85 below the corrected weekly average. The causes of 79, or 2·3 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bristol, Bradford, and in six smaller towns. The largest proportions of uncertified deaths were recorded in Halifax, Oldham, and Salford.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased from 21·3 to 22·6 per 1000 in the four preceding weeks, declined to 22·3 in the week ending the 15th inst.; this rate was, however, 1·4 above the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 14·8 and 16·8 in Leith and Aberdeen, to 23·6 in Greenock and 25·7 in Glasgow. The deaths in the eight towns included 103 which were referred to the principal zymotic diseases, against 116 and 93 in the two previous weeks; 23 resulted from measles, 22 from diarrhœal diseases, 19 from scarlet fever, 16 from whooping-cough, 13 from diphtheria, 10 from "fever" (typhus, enteric, or simple), and not one from small-pox. The rates from these diseases in the Scotch towns last week ranged from 0·0 in Perth and 2·8 in Dundee, to 4·7 in Leith and Aberdeen and 6·8 in Glasgow. The 23 deaths from measles showed a further increase upon recent weekly numbers, and included 12 in Glasgow and 9 in Aberdeen. The 22 deaths attributed to diarrhœal diseases all but corresponded with the numbers in recent weeks, and exceeded by 8 the number returned in the corresponding week of last year. Twelve of the 19 deaths from scarlet fever occurred in Glasgow. The fatal cases of diphtheria showed a decline, while those of whooping-cough were more numerous. The 10 deaths from "fever" exceeded the number in the previous week by 4, 7 occurring in Glasgow and 3 in Edinburgh. The 101 deaths referred to acute diseases of the respiratory organs in the eight towns showed an increase of 3 upon the low number in the previous week, but were 47 below the number returned in the corresponding week of last year. The causes of 73, or nearly 14 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 24·7 and 25·3 per 1000 in the two previous weeks, further rose to 30·0 in the week ending the 15th inst. During the first seven weeks of the current quarter the death-rate in the city averaged 27·4 per 1000, whereas it did not exceed 18·9 in London and 18·4 in Edinburgh during the same period. The 202 deaths in Dublin last week showed a further increase of 32 upon the number in the two previous weeks, and included 25 which were referred to the principal zymotic diseases, against 29, 25, and 18 in the three previous weeks; 10 resulted from scarlet fever, 9 from "fever" (typhus, enteric, or simple), 3 from whooping-cough, 2 from diarrhœa, 1 from measles, and not one either from small-pox or diphtheria; these 25 deaths were equal to a zymotic death-rate of 3·7 per 1000, the rate from the same diseases not exceeding 2·2 in London and 3·2 in Edinburgh. The deaths from scarlet fever in Dublin, which had been 12, 10, and 8 in the three previous weeks, rose again to 10 last week. The fatal cases of "fever," and of whooping-cough, also showed a considerable increase upon the numbers returned in the previous week. Eight deaths were referred to violence, and 51 deaths were recorded in public institutions. The deaths both of infants and of elderly persons showed a marked increase upon recent weekly numbers. The causes of 33, or more than 16 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

WAR OFFICE.—Grenadier Guards: Surgeon Albert Luis Fernandes retires from the service, receiving a gratuity.

ADMIRALTY.—Deputy Inspector-General of Hospitals and Fleets Thomas John Breen has been placed on the retired list, with permission to assume the rank and title of Inspector-General of Hospitals and Fleets.

Staff Surgeon Fleetwood Buckle has been appointed to the *Alexandra*, additional, for Marines at Suakin.

RIFLE VOLUNTEERS.—1st Wiltshire: Surgeon Thomas Jarvis Bennett, M.D., is granted the honorary rank of Surgeon-Major.—2nd Volunteer Battalion, the South Staffordshire Regiment: Surgeon James Clark, M.D., is granted the honorary rank of Surgeon-Major.

SOCIAL SCIENCE ASSOCIATION.—At a meeting of the Council of this Association held on the 13th inst., the following resolutions were unanimously carried—1. "That this Council learns with satisfaction that a proposal has been submitted for the consideration of his Royal Highness the President, and the Executive Council, for employing the surplus which may be found to exist on the closing of the accounts of the International Health Exhibition for the purpose of maintaining and continuing the biological health laboratories and the library as essentials to the study and teaching of correct sanitary work." 2. "That in the opinion of the Council of this Association the opportunity is a favourable one for establishing closer relations between the various organisations which at present exist for the diffusion of sanitary knowledge and the application of sanitary science."

Correspondence.

"Audi alteram partem."

THE APPOINTMENT OF SURGEON-GENERAL OF THE PUNJAB.

To the Editor of THE LANCET.

SIR,—I venture to think that a knowledge of all the facts of the case will lead you to modify the opinion you expressed in THE LANCET of Nov. 15th on the selection of Dr. Dallas for the appointment of Surgeon-General of the Punjab. You are doubtless not aware that for the long period of eighteen years Dr. Dallas performed all the duties which now devolve on the Surgeon-General without getting a sixpence of remuneration for doing so, but such is the fact. In 1862 he was appointed Inspector-General of Prisons, an office to which was attached the supplementary duty of inspecting the dispensaries and civil hospitals of the province. At that early period of British rule in the Punjab the work was light, as the dispensaries were few in number; but under Dr. Dallas's administration they increased rapidly, and after a few years the number of patients attending them were counted by tens of thousands, and the capital operations performed, including about 500 lithotomies, amounted to several thousands a year. The financial as well as the medical administration of these institutions was carried on entirely by Dr. Dallas, in addition to his own proper work—namely, the inspection and administration of the prisons of a province of seventeen millions of inhabitants, and for this extra work he did not receive a shilling of extra pay. By 1874 the civil hospital work had become so heavy that the Punjab Government felt that it was not reasonable to ask the Inspector-General of Prisons to attend to it any longer, and they requested the Government of India to constitute the administration of the civil hospitals an independent charge. For reasons of economy this request was not complied with till 1880, when the office of Surgeon-General was created with a salary considerably higher than that which Dr. Dallas had enjoyed for the performance of the duties now devolved on the Surgeon-General in addition to those of Inspector-General of Prisons. I think, Sir, you will admit that under these circumstances Dr. Dallas might fairly have expected the new appointment as some acknowledgment of his many years of unremunerated toil, and the Punjab Government at the time earnestly pressed his claims on the Government of India, but without success. The claims of seniority prevailed. Dr. Dallas, relieved of the administration of the civil hospitals, was charged only with the duties of the Inspector-General of Prisons, and thereafter two officers were allotted for work which he had done alone for the long period of eighteen years. Since 1880 there have been two Surgeons-General in the province, and when the second vacancy occurred last month the Punjab Government, finding doubtless that such frequent changes were not conducive to the public interest, very properly, as I think, renewed their application for the appointment of Dr. Dallas, and the Government of India acceded to their request. Dr. Dallas had for many years carried on the work with conspicuous success and zeal, and with such patient modesty that neither the Government nor the public had any correct idea of the valuable services he was rendering.

I cannot conclude without mentioning another strong claim Dr. Dallas has to special consideration. It is that to him belongs the merit of having first demonstrated the practicability and advantage of establishing a system of vital statistics in India. In 1864 he prepared a scheme for the registration of deaths in the Punjab, which was at once brought into operation. Nothing of the kind had ever been previously attempted in any other province. The scheme was at first ridiculed as impracticable and useless, but the result has shown that this opinion was entirely wrong, and Dr. Dallas's method of procedure has been found so sound and so well adapted to the circumstances of the country that it has been adopted, with slight modifications, in all the other provinces of the Indian Empire. As it devolved on me to take up this branch of his work when I was appointed Sanitary Commissioner in 1868, I feel I have some right to speak of the value of his services in the matter. For many years he was the referee of the Government in all sanitary questions, and while he only received the salary of one office he did the work of three—namely, that of Inspector-General of Prisons, Surgeon-General, and Sanitary Commissioner. I have only, in conclusion, to express my firm assurance that Dr. Dallas's appointment as Surgeon-General is fully justified on the grounds of the public interest and the recognition due on the part of the Government for his most valuable services.—Your obedient servant,

A. C. C. DE RENZY,
November, 1884. Surgeon-General.

*** Though Dr. De Renzy makes out a very good case for Dr. Dallas's promotion, we are scarcely prepared to admit that it justifies the course followed, for a second time in the Indian service, of giving two steps in such rapid succession, and over the heads of so many seniors, some of whom have also been distinguished for zealous and efficient service.—ED. L.

CHARCOT'S JOINT DISEASE.

To the Editor of THE LANCET.

SIR,—May we, through you, draw the attention of your London readers to the fact that an adjourned discussion on Charcot's Joint Disease will take place at the Clinical Society's meeting on Nov. 28th. There will be the usual opportunity for exhibiting living specimens at 8 P.M.; and the Society will be grateful to any of its members who can show illustrative cases, more especially examples of typical rheumatoid arthritis, combined with ataxia, or typical Charcot's arthropathy without ataxia.

We may add that Professor Charcot has promised to send over for the occasion a series of preparations from his own private collection, to illustrate the disorder and its specific characters.—We are, Sir, yours faithfully,

SIDNEY COUPLAND, R. J. GODLEE, } Hon. Secs.

Clinical Society of London, Berners-st., Nov. 18th, 1884.

"DEATH DURING THE ADMINISTRATION OF METHYLENE."

To the Editor of THE LANCET.

SIR,—After reading Dr. Buchan's letter in your last issue on Death during the Administration of Methylene, I am led to ask: "What is methylene?" Dr. Buchan says "that a sample of the methylene used was tested and found to be pure." I suppose therefore that he will be able to give some account of it, and of the tests he employed. Some years ago I had occasion to point out that the so-called chloride of methylene was simply impure chloroform, and that methylene chloride, CH_2Cl_2, could not be prepared except at a cost which would place it entirely beyond reach for ordinary use as an anæsthetic. If the article which is now being sold as methylene or methylene chloride be, as I suspect, nothing more than impure chloroform prepared from methylated spirit, it is more than probable that it contains chlorinated derivatives of acetone, which are likely to be anything but harmless. I have no hesitation in affirming that all chloroform for anæsthetic purposes should be prepared from pure alcohol alone.

I am, Sir, yours truly,

Granville-park, S.E., Nov. 18th, 1884. HENRY E. ARMSTRONG.

THE CONJOINT EXAMINATION SCHEME.

To the Editor of THE LANCET.

SIR,—I fear the new examination scheme of the English Colleges of Physicians and Surgeons will, unless modified, tend to perpetuate one of the weak points of ordinary English medical education. In almost every other country instruction in science precedes instruction in subjects purely medical, and in our universities the examinations are so arranged that the student is encouraged to acquire a knowledge of chemistry before he commences to study physiology. But it appears that in the new scheme the student's first examination is to include chemistry as well as anatomy, physiology, and materia medica, and he will thus be led to attend lectures on the first three of these subjects simultaneously, as heretofore. This combination is objectionable on several grounds. An average first year's student cannot

give due attention to all these subjects at once, and chemistry is habitually neglected, as most lecturers at medical schools know only too well. Again, some knowledge of chemistry is essential to the due comprehension of lectures on physiology; but how can this knowledge be secured if instruction in the two subjects commences simultaneously? Lastly, the combination of chemistry with anatomy and physiology leads students to enter a medical school at an earlier age than they would if attendance on chemistry were made to precede studies purely medical. Education is hardly advanced enough in England for all the examining boards to insist on such preliminary instruction in science as is required abroad; but surely a movement in the right direction may now be initiated by *allowing* students to pass the examination in chemistry and chemical physics before entering on their medical studies. They would thus be encouraged to work at purely scientific subjects in the year preceding their attendance on anatomy and physiology. If the present combination of subjects is made compulsory, students who do this will be placed at a disadvantage, since the examination in chemistry will be separated from the antecedent course of instruction by more than twelve months.

I am, Sir, yours truly,

Owens College, Manchester, Nov. 17th, 1884. D. J. LEECH.

THE RECENT ESCAPE FROM BROOKWOOD ASYLUM.

To the Editor of THE LANCET.

SIR,—As it would appear, from the sensational statements in various newspapers, that the patient who escaped from this asylum on the 10th inst. was not a fit case for detention here, I venture to send you the following facts:—The patient in question has been insane for many years, and previous to his admission here had been in two asylums in America, from one of which he escaped, and eventually made his way to England. He is a quiet and harmless man, but the subject of well-marked delusions. He has been in the habit for some time past of going out with the attendant who posts the mid-day letters, and on the afternoon of the 10th gave the attendant the slip, concealed himself until dark in the woods, and eventually walked to London. He presented himself to the American Consul the next day, asserting that he was perfectly sane and illegally detained here. Mr. Lowell promised to investigate his case, and prevailed upon him to return to the asylum, which he did, after an absence of forty-eight hours. This man's mental condition is well known to the Commissioners in Lunacy, and to the Visiting Justices of the asylum, and they concur in my opinion that he is a fit case for asylum care.

Yours faithfully,

JAS. E. BARTON,
Medical Superintendent.

Surrey County Asylum, Brookwood, Woking, Nov. 18th, 1884.

THE NEW ANÆSTHETIC—CUCAIN.

To the Editor of THE LANCET.

SIR,—For some time several laryngologists have been employing a salt of cucain for the purpose of producing local anæsthesia. At the recent Ophthalmic Congress its value was demonstrated, and many surgeons have since used it in operations on the eye and other parts. A weak solution of the muriate (2 or 4 per cent.) produces anæsthesia of mucous membranes sufficient to enable operations to be performed without pain. A stronger solution is sometimes required. It is only necessary to paint the part with a camel-hair brush once, twice, or thrice, at intervals of three to five minutes, when local anæsthesia is produced, lasting from fifteen to twenty minutes, sometimes half an hour. The value of such an agent is manifest, for it gives no pain whatever. Painless operations for cataract, squint, &c., have been done after a couple of such instillations. I have had repeated success with this anæsthetic in depriving the fauces of sensibility, in removing excessive irritability of these parts for operative purposes, and to-day it has furnished me great assistance in the intra-laryngeal manipulations of an unusually difficult case of growth in the larynx.

I have spoken of the alkaloid as cucain. It is the active principle of cuca erythroxylon, more often called coca. Sir R. Christison proposed to spell it cuca, and as that represents the pronunciation of the natives, and serves to distinguish it more completely from other substances, it is to be hoped his suggestion may be more generally followed than hitherto.

I am, Sir, yours truly,

Dean-street, Park-lane, Nov. 18th, 1884. PROSSER JAMES.

SURGICAL ERYTHEMA.

To the Editor of THE LANCET.

SIR,—*A propos* of Dr. de Havilland Hall's interesting communication to the Medical Society on Scarlet Fever in Surgical Cases, I have now under my care a child about three years old suffering from an injury to the head, resulting in abscess beneath the scalp and general erysipelas of the face. Before the latter had subsided a scarlet rash appeared over the trunk and thighs, resembling the efflorescence of scarlet fever, but presenting to the touch the feeling of grains of sand; there was no perceptible exacerbation of pyrexia, or increase of temperature. The following day the rash had nearly disappeared, leaving patches of deep red papillæ on the thighs. There has been no subsequent desquamation. If I may venture to offer an opinion on Dr. Hall's case, I should think the child had been subjected unknowingly to the infection of scarlet fever either previous to the operation or soon after, proclivity to the disease being increased by the depressing effect of an operation. Desquamation is certainly a pretty conclusive proof of the nature of the attack.

I am, Sir, yours obediently,

Queen's-park-terrace, W., Nov., 1884. J. HAWKES, M.D.

LIVERPOOL.

(*From our own Correspondent.*)

THE CITY CORONER'S COURT.

IN the last annual report of the head constable is a table (No. 31) giving a return of all inquests held before the city coroner from the 30th September, 1883, to the 29th September, 1884. The following are details extracted from it. There were in all 1584 deaths referred to the coroner. In 855 he decided that an inquest was not required, and in 729 inquests were held. Of this number 486 were on the bodies of males, 243 on females, 168 were infants under one year, of whom 150 were legitimate, 18 illegitimate. The findings of the jury were—murder 10 cases, manslaughter 7, suicide 38, accidental death 402, of which 260 were those of males, 142 females; injuries (cause unknown) 47; found dead 57; excessive drinking—males 47, females 26; disease aggravated by neglect 3, from want, cold and exposure, &c. 4; other causes 88. The total cost of these 729 inquests was £2357 13*s.* The present coroner, Mr. Clarke Aspinall, J.P., has held office since 1867. He is a solicitor, paid by salary, which has been gradually raised up to its present amount of £1500 per annum. He does not practise, devoting his whole time to the duties of his office, and to assisting the stipendiary magistrate. With the exception of the borough gaol, which, though situated in the district of the county coroner, is by a local Act included in the borough coroner's district, all inquests are held at the coroner's court, situated within the police buildings, in which are also the magistrates' courts, the head constable's and detective offices, &c.

THE LADIES' CHARITY AND LYING-IN HOSPITAL.

With the exception of the Royal Infirmary the Ladies Charity is the oldest of the medical charities of Liverpool, having been established nearly a century ago as a maternity charity for attendance on poor married women at their own homes. It was amalgamated with the Lying-in Hospital in 1869. Lately a new hospital has been erected on Brownlow-hill, a central and convenient thoroughfare. It will be for the reception of labour cases, and is to be opened to-day by the Countess of Sefton. Fuller details will be forwarded in a future letter.

THE WINTER ASSIZES.

Mr. Justice Day has been sitting since the 13th inst., trying the prisoners in what is rather a heavy calendar. There are four cases of murder, and many where the knife and brutal violence have been used. In all cases where he has power to do so Justice Day sentences those charged with

robbery accompanied by violence to short terms of imprisonment and the infliction of the lash. In a very large proportion of cases drink has been the cause of the crime.

Liverpool, Nov. 19th, 1884.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

NEWCASTLE-ON-TYNE.

THE returns of infectious diseases for the last fortnight ending November 8th, and notified to the medical officer of health for the city by practitioners, show a total of 130 cases; of these 106 are put down to scarlet fever, which shows, when taken with the death-rate, that this disease has taken a rather serious epidemic form. The House Committee of the Infirmary announced at their late meeting that His Royal Highness the Prince of Wales had consented to become the patron of the infirmary, an office which has not hitherto existed in association with the institution. His Royal Highness at the same time enclosed a donation of fifty guineas. The city engineer and the medical officer of health, Mr. H. E. Armstrong, have just presented to the City Council a report on the water-supply of Newcastle-on-Tyne and district, which may indeed be said to be opportune, exhaustive, and suggestive. The report is accompanied by tables of analyses, maps of the gathering grounds for the water, and also diagrams showing its distribution. The report may be said to have sprung out of a letter by Dr. Huntley, sent to the Town Council in January last, and complaining of the sewage contamination of the water-supply. The city engineer and the health officer were requested to inquire into the causes of complaint, which they have done in a very able manner, and have likewise presented a mass of facts elicited in their inquiry likely to prove of great value as to the storage, conveyance, and distribution of water. The total area from which the supply is derived is about 22,000 acres, of which fully nine-tenths are pasture and moorland. The number of inhabitants is small, being about 1320, or 0·06 per acre. The number of stock is of course considerable, and is estimated at about 11,000 on the average, or 0·50 per acre. While, therefore, it is by no means an ideal gathering ground, it will bear favourable comparison with those of many larger and more important cities. The amount of water delivered each day averages 13,000,000 gallons. The population to be supplied, or that has yet to be supplied, by the water company amounts to 370,000, and gives a consumption per head for all purposes of 38½ gallons. The medical officer of health of course enters very fully into the question of purity, and it is satisfactory to us to know that, although the water is not what it should be, or indeed might be, yet upon the whole a range of tests and examinations shows it to be fairly good and wholesome. Mr. H. E. Armstrong, however, points out many defects, and makes suggestions for their removal; and there can be no doubt that if his recommendations and those of the engineer are attended to we shall have a water-supply in point of quality and quantity little, if at all, inferior to any city in the kingdom.

THE HUDSON BEQUEST TO SUNDERLAND.

This munificent bequest, although somewhat limited in its operation by the terms of the will, is likely very soon to prove a great blessing to many in the borough. The trustees have now been appointed, and they have advertised for a superintendent to begin the operations of the charity. It appears that, so far, after calling in all the late Mr. Hudson's effects, there will remain the handsome sum of at least £160,000, available to support, clothe, and educate the orphan children of pilots and of others connected with the sea. No part of the funds, it is expressly laid down, is to be devoted to the erection and purchase of any building. Orphans are defined to be children whose fathers are dead or paralysed.

SMALL-POX IN DURHAM CITY.

In view of the continuance and spread of small-pox in the city of Durham application has been made to the authorities for the use of the Durham militia barracks as a temporary hospital, and this has been granted under certain conditions, so that at last the city is provided with an infectious diseases hospital. The local papers are full of letters from dissatisfied writers as to the choice made by the sanitary authority of the barracks; but in fact there was no choice, and the barrack appears to be the only available building for the purpose. It certainly is dangerously near some of the dwellings of the poorer classes; and unless an infectious hospital be erected in a very isolated situation, it must always be looked upon as a disagreeable neighbour.

CARBOLIC ACID POISONING AT MORPETH.

An inquest has been held in the board-room of the Morpeth workhouse on the body of an inmate who died after swallowing a quantity of carbolic acid. It came out in evidence that he had been an engine-fitter, was in his seventy-second year, and had been a patient in a lunatic asylum. He confessed to another inmate, about two hours before he died, that he had taken the carbolic acid from the workhouse scullery, where it was open to anyone.

LEAD-POISONING AT SOUTH SHIELDS.

At a late meeting of the South Shields Board of Guardians Dr. Drummond reported a fatal case of lead-poisoning which had occurred in the Westoe district. The person had been employed at the Hebburn works.

Newcastle-on-Tyne, Nov. 19th.

PARIS.

(From our own Correspondent.)

THE CHOLERA EPIDEMIC.

The cholera epidemic is of course the all-absorbing topic of the day. I am glad to be able to say that the disease is not extending; but, on the contrary, it is limited to the quarters where it originated; and if one may judge from the number of the fresh cases that occur, and which are diminishing daily, one may predict a short life for the epidemic. The number of cures is also greater, and the mortality considerably less in proportion to what it was at the commencement of the epidemic. For instance, on the first day of the outbreak—that is, on the 4th inst.—there were 2 deaths, and on the 16th there were 92 in and out of the hospitals. Taking the hospitals alone, the official report for the 16th and 17th inst. shows that the number of admissions on the 16th was 34 (25 men and 9 women), against 70 of the previous day. The number of deaths fell from 49 on the 15th to 33 (20 men and 13 women) on the 16th. Thirteen patients left the hospitals cured, which, added to the cases that left on the 14th and 15th, make a total of 52. On the 17th the admissions were 37 (24 men and 13 women) and the number of deaths 25 (16 men and 9 women). The number cured amounted to 34. The total number under treatment in the hospitals on that day amounted to 348. The number of cases affected with the disease in Paris from the 4th to the 17th inst. amounts to 1500, and the number of deaths to 695, which, compared with the population, which is estimated at 2,239,000, is considered a small proportion. From the provinces likewise the reports are more favourable. At Yport two deaths were reported on the 18th inst. At Nantes there were 3 fresh cases on that day, and 39 under treatment. No new cases have been reported within the last two or three days from Toulon.

A DANGEROUS EXPERIMENT.

Dr. Bochefontaine, chef of Professor Vulpian's laboratory, lately tried some experiments on himself with the view of proving the inefficiency of the comma bacillus to produce cholera, and that cholera dejecta are neither infectious nor contagious. He swallowed pills composed of four cubic centimetres of diarrhœic fluid from a patient, a woman of thirty-five, who died in Professor Vulpian's ward with the characteristic symptoms of cholera. No effect was produced on the day of experiment, but on the following day the venturesome physician was seized with symptoms of malaise, expressed by a feeling of feverishness, fulness of the head, and rumbling of the bowels, unaccompanied, however, with diarrhœa; there was some fulness of the stomach with nausea. It must also be noted that slight dysuria also manifested itself, but on the next day he was quite well again. This experiment, however, far from proving the innocuity of the pills that the doctor swallowed, is in

my opinion rather confirmatory of Dr. Koch's theory of the pathology of cholera, for the symptoms he experienced were evidently those of the incipient stage of the disease, and I do not believe he would be so foolhardy as to try such a dangerous experiment on himself again, especially as those tried on two guinea-pigs and a dog with the same fluid injected subcutaneously were sufficiently conclusive, both the animals dying with symptoms of cholera.

Paris, Nov. 19th.

MEDICAL NOTES IN PARLIAMENT.

Alleged Lunatics.

IN the House of Commons on Friday, the 14th inst., the Lord Advocate, in reply to Dr. Cameron, who asked a number of questions relative to the case of Thomas Harrison, who escaped from Cheadle Lunatic Asylum, Manchester, and made his way to Glasgow to have his sanity investigated under the safeguards of the Scotch law, stated that if Harrison was still in Scotland he would have the same protection as any other citizen and the same legal remedies.

In reply to Mr. Corbett, who asked the Home Secretary whether his attention had been called to a report in the newspapers of the escape of an American gentleman named Bruce from the Brookwood Lunatic Asylum, Sir William Harcourt stated that he had no knowledge whatever of the case, but it would be inquired into.

Dublin Hospitals.

In reply to Mr. Power, who asked whether it was the fact that there was no duly qualified compounder of medicine in the Rotunda Hospital, the Coombe Hospital, or the Pitt-street Institute, Dublin, Mr. Campbell-Bannerman stated that the two hospitals alluded to had an arrangement with an eminent firm of dispensing chemists for the compounding and dispensing of medicines, and that in the few intern cases at the Rotunda Hospital where medicines are necessary they are made up under the supervision of the master and the assistant physician. Regarding the Pitt-street Institute, he could supply no information.

Cholera Preparations.

On Monday, replying to Mr. Moore, Sir C. Dilke stated that the Local Government Board have caused inspection to be made by Dr. Blaxall and Dr. de Chaumont of the sanitary condition of the principal English ports, particularly with reference to their preparedness against cholera, and that recently a conference took place between representatives of the Metropolitan Asylums managers and members of the medical staff of the Local Government Board to consider the question of arrangements in the event of an outbreak in London.

Over-pressure in Board Schools.

In reply to Mr. Stanley Leighton, Mr. Mundella stated that he could not admit the accuracy of the fact that the National Union of Elementary Teachers, representing 13,000 teachers, had endorsed the conclusions of Dr. Crichton Browne and condemned the report of Mr. Fitch; indeed, he was daily in receipt of evidence from teachers, many of whom are members of the National Union, entirely dissenting from the views set forth in Mr. Heller's letter. Seeing that the London School Board had the whole matter under their consideration, he could not reconsider his refusal to institute an inquiry by impartial medical men into the grievances complained of.

Surgeons-Major in the Army.

In reply to Colonel Walrond, the Marquis of Hartington stated that it is distinctly laid down in the Royal Warrant that surgeons-major are to be selected for promotion to the higher ranks of the medical staff. Under such a system, therefore, promotion is not necessarily the rejection of an incompetent officer, but the selection of the most competent officer; and he was not prepared to admit that that officer is passed over who does not happen to be selected for advancement, nor did he see that such officer is entitled to have notification made to him of his non-selection.

Accommodation in Lunatic Asylums.

In reply to Mr. A. O'Connor, Sir William Harcourt stated that his attention had been called to the case of the woman who had been sent to a private lunatic asylum by the Paddington guardians, in consequence of there being no accommodation in the three county asylums of Hanwell, Colney Hatch, and Banstead. The inadequat accommodation in the county asylums had been several times brought to the attention of the justices by the Lunacy Commissioners, and he would do everything in his power to secure proper accommodation being provided. In the particular case in question, the husband of the lunatic would pay no more than if his wife had been placed in a public asylum.

Examinations for the Army Medical Department.

On Thursday, Mr. Sheil asked the Secretary for War whether he would lay upon the table a return of the marks made by candidates at the last two examinations for the Army Medical Department; whether the vacancies have, in all cases, been filled by those candidates who obtained the highest marks in the competitive examination; why information as to the number of marks gained by unsuccessful candidates in the examination for the Army Medical Department is refused; and whether he is aware that this information is supplied to candidates for the Navy Medical Department. The Marquis of Hartington, in reply, said he could not undertake to give a return of marks at the last two examinations for the Army Medical Department. The marks of the successful candidates have already been published; but for obvious reasons it is not the practice in any examination to give the marks of unsuccessful candidates, unless they can be designated by numbers. In the examinations for the Medical Staff the candidates are examined by name, and no numbers are assigned to them. The vacancies have in all cases been filled by those candidates who obtained the highest aggregate of marks in the compulsory subjects without failing to reach the standard in any of them. This was in accordance with the published terms of the competition. Marks in the voluntary subjects have only a value in determining the place of the candidate on the list of those successful in virtue of their marks in the compulsory subjects. He understood that information as to the number of marks gained by unsuccessful candidates was refused in consequence of the wish of the examiners, but he saw no sufficient reason why a candidate should not, on his application, be informed of the marks he gained, and he would give directions accordingly. He understood that similar information was afforded in the case of the Naval Medical Department.

Medical News.

UNIVERSITY OF LONDON.—The following candidates have passed the recent M.B. Examination:—

FIRST DIVISION.

Anderson, George Elliott Caldwell, Guy's Hospital.
Bennett, Fred. William, Owens College and Manchester Royal Infirmary.
Bowes, William Henry, Guy's Hospital.
Cockey, Edmund Percival, St. Mary's Hospital.
Crookshank, Edgar March, King's College.
Day, John Roberson, University College.
Dent, Harry Lord Richards, King's College.
Glover, John Philip, St. Thomas's Hospital.
Gostling, William Ayton, B.Sc., University College.
Green, Charles David, St. Thomas's Hospital.
Gross, Charles, Guy's Hospital.
Irvin, Frederic David, University College.
Jones, Frederick William Caton, St. Bartholomew's Hospital.
Jones, John Hervey, Owens College and Manchester Royal Infirmary.
Lewers, Arthur Hamilton Nicholson, University College.
Mumby, Langton Philip, Westminster Hospital.
Penrose, Francis George, University College.
Powell, John Joseph, University College.
Prideaux, Frances Helen, London School of Medicine for Women and Royal Free Hospital.
Purslow, Charles Edwin, Birmingham School of Medicine.
Reynolds, Ernest Septimus, Owens College and Manchester Royal Infirmary.
Rouse, Rolla Edward, St. Thomas's Hospital.
Rushworth, Frank, St. Bartholomew's Hospital.
Spencer, Herbert Ritchie, University College.
Thorburn, William, B.Sc., Owens College and Manchester Royal Infirmary.
Turner, Alfred Jefferis, University College.
Vince, John Foster, Queen's College and Hospital, Birmingham.
Womack, Frederick, B.Sc., St. Bartholomew's Hospital.
Woolbert, Henry Robert, University College.

SECOND DIVISION.

Adie, Joseph Rosamond, University College.
Anderson Daniel Elie, B.A., B.Sc., University College.
Beever, Hugh Reeve, King's College.
Bernard, Letitia Caroline, London School of Medicine for Women and Royal Free Hospital.
Bigger, Samuel Ferguson, University College.
Brown, James Grierson, Liverpool Royal Infirmary.
Cooper, George Frederick, St. Thomas's Hospital.
Dobson, Joseph, Leeds School of Medicine.
Evans, William Arnold, Owens College and Manchester Royal Infirmary.
Floyer, William Wadham, Guy's Hospital.
Lynam, Robert Garner, King's College.
Marriner, William Herbert Lister, St. Thomas's Hospital.
Parkinson, Charles Joseph, Owens College and Manchester Royal Infirmary.
Thomas, John Ragian, St. Bartholomew's Hospital.
Thomson, Theodore, Universities of Aberdeen and Edinburgh.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Nov. 13th:—

Darlington, Alfred Naylor, Queen's College, Birmingham.
Davis, David, King's College.
Dickinson, Joseph Jewitt, Cambridge and London Hospital.
Edginton, Alfred Dudley, St. Bartholomew's Hospital.
Foster, Albert Ernest, Leeds School of Medicine.
Humphry, Ernest, St. Bartholomew's Hospital.

THE sum of £500 has been bequeathed to the Walsall Cottage Hospital by the late Mr. Edmund Burke.

ROYAL COLLEGE OF SURGEONS.—Mr. William Scovell Savory, F.R.S., Vice-President of the College, will deliver the annual "Bradshawe Lecture," on Thursday, the 4th proximo.

THE Corporation of London have thrown open to the public, for the purposes of recreation, the disused burial-ground known as Bunhill-fields, City-road.

MEDICAL MAYOR.—The following name was inadvertently omitted from the list given in THE LANCET of last week: J. E. Brooks, L.R.C.P.Ed., M.R.C.S., Ludlow.

DR. JONATHAN ATKINSON HARRISON, Hazlewood, Haslingden, has been placed on the Commission of the Peace for the county of Lancaster.

BEQUESTS.—The late Mr. James Lindsay has bequeathed £500 to the Belfast Royal Hospital, £500 to the Society for Providing Nurses for the Sick Poor, and £500 to the Belfast Charitable Society.

SAMUEL HOLMES, an unqualified assistant, who was tried at York on Wednesday for having caused, by improper treatment, the death of a woman whom he attended in her confinement, has been acquitted.

ON the 15th inst., Mr. Rowe, a student of St. Thomas's Hospital, fell dead in the football field. Mr. Rowe was twenty-three years of age, and one of the senior students.

DEATH FROM FRIGHT.—A child has recently died at Rye from shock to the nervous system, caused by fright at seeing a boy wearing a mask. She lost her reason the first day after the occurrence.

THE UNIVERSITY OF ADELAIDE.—The Council of this University are inviting applications for a Professorship of Anatomy. Full particulars are to be obtained of the Agent-General for South Australia, Sir Arthur Blyth, K.C.M.G., 8, Victoria Chambers, Westminster.

ON the 17th inst. the Queen attended the funeral of Willie Blair, "Her Majesty's Highland fiddler," who died last week at the venerable age of ninety years. The remains were interred at the churchyard of Crathie, where a monument will be raised by command of the Queen.

THE VACCINATION ACTS.—Sir Charles Dilke, in answer to a memorial from Leicester as to the prosecution of 3000 defaulters under the Compulsory Vaccination Acts, has replied to the effect that he must decline to receive a deputation on the subject. He adds that the law must be carried out and that he cannot interfere with its enforcement.

CAMBRIDGE PHILOSOPHICAL SOCIETY.—The following elections were made at the annual meeting of the Society on Monday last: Professor Michael Foster, president; Professor Stokes, Lord Rayleigh, and Prof. Liveing, vice-presidents; Mr. J. W. Clark (Trinity), treasurer; Mr. Coutts Trotter (Trinity), Mr. Glazbrook (Trinity) and Mr. S. H. Vines (Christ's), secretaries.

PENNY MEALS.—The Exhibition in Humphreys' Hall, Knightsbridge, under the auspices of the Bread Reform League, will be opened to-day (Saturday). An evening *fête* will be held on Wednesday, the 26th inst., in order to raise a fund for providing wholesome and satisfying breakfasts and dinners for poor school children in London at the cost of one penny per meal.

SUICIDE OF A SURGEON.—An inquest was held on the 15th inst., at Cheltenham, on the body of Mr. W. A. Moseley, late resident surgeon at the branch dispensary in connexion with the Cheltenham General Hospital, who died on the previous day from the effects of a dose of prussic acid. A verdict of suicide whilst in a state of unsound mind was returned. Singularly enough, Mr. Moseley's predecessor met with his death in a similar way in the same house two years ago.

QUEEN'S COLLEGE, CORK.—The following scholarships and exhibitions have been awarded in the Faculty of Medicine:—Fourth year: Physiology, Anatomy, and Surgery, James Bradley; Medicine, Midwifery, and Medical Jurisprudence, Cornelius Bradley; Exhibitioners, Daniel J. Lane and William A. Whitelegge. Third year: John Ambrose Keogh (first), and J. R. T. Connor (second); Exhibitioner, Charles R. Leader. Second year: Edward R. Hennessy (first), and Robert J. Duffin (second).

UNIVERSITY OF CAMBRIDGE.—The number of freshmen intending to study medicine who have this term entered at Cambridge University is 111. A few more may have to be added in December after the result of the previous examination is known; this examination serving for many as the examination preliminary to registration by the General Medical Council. The freshmen are variously distributed over all the colleges and public hostels, one college only excepted. A small number are entered as non-collegiate students.

SPEAKING at Devonport on the 19th inst., Admiral Sir W. Houston Stewart, commanding the western district, said that his prediction that the repeal of the compulsory clauses of the Contagious Diseases Act would be a disastrous step had been more than justified. On board the flagship the number of cases had doubled, and out of a draft of fifteen men sent on board a ship under orders for China, thirteen had to be sent back. He regretted that his position as Commander-in-Chief prevented him from commenting as he would like on this false step.

ANTHROPOLOGICAL INSTITUTE.—At the meeting on the 11th inst., Mr. Francis Galton described the object, method, and appliances of the late Anthropometric Laboratory at the International Health Exhibition, reserving the statistical results, which were not yet fully worked out, for another occasion. The result showed that 9344 persons passed through the Laboratory, each of them being measured in seventeen distinct particulars for the sum of 3*d.* in a compartment only six feet wide and thirty-six feet long. Mr. H. O. Forbes read a paper on the People of the Island of Burn.

ROYAL SOCIETY MEDALS.—The Council of the Royal Society have made the following award of medals:—The Copley Medal to Professor Carl Ludwig of Leipzig, foreign member of the Royal Society, for his investigations in physiology and the great services he has rendered to physiological science; the Rumford Medal to Professor Tobias Robertus Thalé of Upsala, for his spectroscopic researches; a Royal Medal to Professor G. H. Darwin, F.R.S., for his mathematical investigations on the rigidity of the earth, and on tides; a Royal Medal to Professor Daniel Oliver, F.R.S., for his investigations in the classification of plants and for the great services which he has rendered to taxonomic botany; the Davy Medal to Prof. A. W. H. Kolbe of Leipzig, foreign member of the Royal Society, for his researches in the isomerism of alcohols.

WYCOMBE COTTAGE HOSPITAL.—At the recent annual meeting of the supporters of this institution it was stated that during the year ending Sept. 30th 112 patients had been admitted. Towards the enlargement of the men's accident ward and the cost of furnishing £320 had been contributed, and after paying for everything a balance of £60 remained in the treasurer's hands. Although the charges for maintenance had increased on account of the larger number of patients, the financial condition of the hostpial had been satisfactory.

TYPHUS FEVER AT CHORLTON.—At the weekly meeting of the Chorlton Board of Guardians on the 14th inst., it was stated that with the exception of ten or twelve beds the hospital at Monsall was full. Fresh cases of typhus had occurred during the week, and the condition of the houses in the district where the fever most prevailed was described as disgraceful. It was suggested that a deputation from the guardians should be appointed to see the Health Committee on the subject; but as it was understood that the Corporation were taking some steps in the matter, the motion was not pressed.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BACK, HERBERT HATFIELD, M.B.Lond., has been appointed Medical Officer of Health for the Rural Sanitary District of the Blofield Union, vice F. Cufande, resigned.

BLUETT, GEORGE MALLACK, M.R.C.S., has been appointed Assistant House-Surgeon to the London Temperance Hospital, Hampstead-road, N.W.

CHADWICK, ALFRED, M.D.Brux., L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Heap District of the Bury Union, vice Worsley.

CUFANDE, FRANK, M.R.C.S., has been appointed Medical Officer for the Acle District of the Blofield Union, vice W. H. Cufande, deceased.

EAST, C. H., L.S.A.Lond., has been appointed Assistant House-Physician to King's College Hospital.

GILPIN, GEORGE LUCK, M.R.C.S., has been appointed Assistant Medical Officer and Dispenser for the Central London Sick Asylum District.

HASELL, E. S., L.S.A.Lond., has been appointed Physician-Accoucheur's Assistant to King's College Hospital.

HILL, M., M.D., has been appointed Honorary Physician to the Bootle Borough Hospital, vice G. C. Walker, M.D., resigned.

HODGES, HERBERT CHAMNEY, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the Fourth District of the Hertford Union, vice H. B. Hodges.

HODGSON, G. G., M.R.C.S., L.S.A.Lond., has been appointed Physician's Assistant to King's College Hospital.

HOUGHTON, LAMBERT, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer of Health for the Amersham Rural Sanitary District, vice Hosegood, whose appointment has expired.

HUGHES, EDGAR A., M.R.C.S., L.S.A.Lond., has been appointed Assistant House-Accoucheur to King's College Hospital.

HUTCHINSON, S. J., M.R.C.S., L.D.S., has been appointed Lecturer on Dental Surgery and Pathology at the London School of Dental Surgery, vice Alfred Coleman, F.R.C.S., L.D.S., L.R.C.P., resigned.

JACOMB-HOOD, C., M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to King's College Hospital.

JONES, R. NELSON, L.R.C.P.Lond., M.R.C.S., has been appointed House-Surgeon to the Swansea Hospital, vice W. Carr Humphreys, M.R.C.S. &c., resigned.

LANE, ALEXANDER, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Prestelgne District of the Knighton Union, vice Harding.

MCGEAGH, JAMES PAUL, M.D., M.Ch.Q.U.I., has been appointed Resident Medical Superintendent to the West Derby Union Infirmary, Mill-road, Everton, Liverpool.

MACLEHOSE, NORMAN M., M.B., C.M., has been appointed Resident Medical Officer to the Sick Children's Hospital, Glasgow, vice Mr. W. S. H. Walker, whose term of office has expired.

PENNY, FRANCIS, M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to King's College Hospital.

PRIESTLEY, JOSEPH, B.A., M.B., M.R.C.S., has been appointed Resident Clinical Assistant to the Hospital for Consumption and Diseases of the Chest, Brompton.

NEWSHOLME, ARTHUR, M.D.Lond., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer of Health for the Clapham District.

REID, FRANK, L.R.C.P.Ed., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Sixth District of St. Saviour's Union.

ROBINSON, HUGH SHAPTER, M.R.C.S., L.R.C.P.Ed., has been elected an Honorary Surgeon to the Monkwearmouth Dispensary and Accident Home.

ROSE, J., M.R.C.S. &c., has been appointed Honorary Ophthalm Surgeon to the Bootle Borough Hospital.

RUNDLE, EDMUND, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer for the Sithney District of the Helston Union.

RUSSELL, A. W., M.B., C.M.Aber., has been appointed Medical Superintendent to the Western Infirmary, Glasgow.

SLATER, DRUCE J., M.B.Lond., M.R.C.S., has been appointed Resident Clinical Assistant to the Hospital for Consumption and Diseases of the Chest, Brompton.

TRIMMER, H. BERSLEY, M.D. St. And., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Third District of St. Neots Union, vice Walker.

TUKE, J. BATTY, jun., has been appointed Deputy Medical Superintendent of the Saughton Hall Institution for the Cure and Care of the Insane.

TURNER, N. H., M.R.C.S., has been appointed House-Surgeon to King's College Hospital.

WALKER, G. C., M.D. &c., has been appointed Honorary Consulting Physician to the Bootle Borough Hospital.

WILLIAMSON, J., M.B., C.M.Ed., has been appointed Junior Resident Medical Officer to the Great Northern Central Hospital, Caledonian-road, London, N.

Births, Marriages, and Deaths.

BIRTHS.

DOUGLAS.—At 1, Marshall-place, Perth, N.B., the wife of T. Kennedy Douglas, M.B., C.M., &c. (late of Tapanui, New Zealand), of a daughter.

GILLESPIE.—On the 12th inst., at Upper Belgrave-road, Clifton, the wife of W. H. Gillespie, L.R.C.S.I., L.K.Q.C.P.I., of Castle Cary, Somerset, of a son.

HEAD.—On the 15th inst., at Morton House, Weymouth, the wife of Philip Alexander Dewar Head, M.R.C.S., of a son.

HUTCHINSON.—On the 9th inst., at Neasden, the wife of S. J. Hutchinson, L.D.S., M.R.C.S., of Brook-street, W., and The Grange, Neasden, N.W., of a daughter.

RUTTLEDGE.—On the 24th ult., at Jaunpúr, N.W.P. India, the wife of Surgeon-Major E. B. Ruttledge, Bengal Medical Service, of a son.

STEIN.—On the 12th inst., at Grove House, Warsop, Nottinghamshire, the wife of Charles Guthrie Stein, M.R.C.S.E., & M.B., C.M.Ed., of a daughter.

MARRIAGES.

BAILEY—ASPINALL.—On the 19th inst., at the Parish Church, Lee, by the Rev. E. Snowdon-Smith, Rector of St. Mary's, Warwtree (cousin of the bride), assisted by the Rev. W. B. Bucke, Vicar of Holy Trinity, Lee, Henry Frederick Bailey, M.R.C.S. &c., of The Hollies, Lee-terrace, Blackheath, to Charlotte Hannah (Lota), only daughter of J. Aspinall, of Blackheath.

FORD—WAINWRIGHT.—On the 12th inst., at St. Jude's, Southsea Richard William Ford, Army Medical Department, youngest son of R. W. Ford, Esq., of Portsmouth, and the Manor House, Wymering, to Mary Augusta, youngest daughter of the late Rear-Admiral J. F. B. Wainwright.

FRASER—RUSSELL.—On the 12th inst., at Skelmorlie Church, N.B., James Fraser, M.D., Deputy Surgeon-General, to Annie Jane, daughter of the late John Russell, of Kew-terrace, Glasgow.

DEATHS.

BLASSON.—On the 10th inst., at Epsom, suddenly, Thomas Hereward, the beloved eldest son of Thomas and Louie Blasson, of Billingboro', deeply lamented, aged 11 years. Friends will kindly receive this intimation.

BOWMAN.—On the 13th inst., at Windsor-terrace, Newcastle-upon-Tyne, Hugh Torrington Bowman, M.D., aged 40.

CARROLL.—On the 9th inst., at his residence, Lady-lane, Waterford, William Carroll, M.D., aged 81.

JONES.—On the 3rd inst., at Llanfyllin, North Wales, John Jones, L.S.A.Lond., in his 65th year.

LANGSTAFF.—On the 9th inst., at Havre, France, Charles Langstaff, M.D., of Bassett, near Southampton, aged 51.

MOSELEY.—On the 14th inst., at Cheltenham, William Arthur Moseley, M.D., fourth son of E. C. Moseley, Esq., of Nassau, Bahamas, aged 34.

RAINEY.—On the 16th inst., George Rainey, M.R.C.S., of St. Thomas's Hospital and Brixton, in his 84th year.

SALL.—On the 15th inst., at Munster-terrace, Fulham, William Sall, M.D., Deputy Inspector of Army Hospitals and Medical Officer to H.M. Female Convict Prison at Fulham, aged 73.

SEWELL.—On the 10th inst., at Guy's Hospital, from phlegmonous inflammation about the larynx, Joseph James Sewell, M.R.C.S. and L.R.C.P. Edin., only son of the late Mr. Joseph Sewell, Halstead, Essex.

WILSON.—On the 13th inst., at Lonsdale, Newton Abbot, suddenly, John Wilson, Surgeon-General, Madras Army (Retired), aged 56.

WRIGHT.—On the 17th inst., at St. Margaret's-terrace, Cheltenham, Dr. Thomas Wright, F.R.S., aged 75.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, November 20th, 1884.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind	Dry Bulb	Wet Bulb	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Nov. 14	30·49	E.	42	40	..	48	40	..	Foggy
,, 15	30·47	E.	40	38	..	45	36	..	Foggy
,, 16	30·40	E.	41	39	..	43	29	..	Overcast
,, 17	30·34	N.E.	40	37	..	45	33	..	Overcast
,, 18	30 32	N.E.	42	40	..	46	36	..	Overcast
,, 19	30·48	N.E.	40	39	..	46	37	·04	Cloudy
,, 20	30 30	N.W.	40	38	..	46	37	..	Overcast

Medical Diary for the ensuing Week.

Monday, November 24.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M
LONDON HOSPITAL MEDICAL COLLEGE.—8 P.M. Mr. Jonathan Hutchinson: The Art of Note-taking and other Matters.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Discussion on Anæsthetics. Paper by Mr. Woodhouse Braine. The discussion to be opened by Mr. G. H. Bailey.

Tuesday, November 25.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 P.M., and Thursdays at 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Dr. J. G. Garson: Exhibition of a Prehistoric Skull from the Island of Antiparos.—Dr. W. H. Coffin: Note on the Abnormal Dentition of a Hairy Boy from Russia.—Miss A. W. Buckland: Fact Suggestive of Prehistoric Intercourse between East and West.—Mr. Horatio Hale: Some Doubtful or Intermediate Articulations.—Mrs. Erminie A. Smith: Remarks on the Customs and Language of the Iroquois.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. Henry Morris: A Successful Case of Lumbar Nephrectomy for Renal Calculus.

Wednesday, November 26.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays, at 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.—Skin Department: 9.30 A.M., on Tuesdays and Fridays.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations 2½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL MEDICAL COLLEGE.—3 P.M. Mr. Jonathan Hutchinson: The Surgery of the Receiving Room.
HUNTERIAN SOCIETY.—8 P.M. Dr. Goodhart: Water on the Brain.—Dr. Herman: The Number of Persons who Suffer from Headaches.—Mr. Charters J. Symonds: The Spontaneous Disappearance of Nævi.

Thursday, November 27.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.
PARKES MUSEUM.—Dr. Alfred Carpenter: Progress and Co-operation in Sanitary Work.

Friday, November 28.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL MEDICAL SOCIETY.—Mr. John Marriott: The Pathology of Tubercle.
QUEKETT MICROSCOPICAL CLUB.—8 P.M. Mr. F. Bates: The Supposed Sexual Threads in Zygnemaceæ.
CLINICAL SOCIETY OF LONDON.—8.30 P.M. Adjourned Discussion on Mr. Morrant Baker's Paper on Charcot's Joint Disease. Living Specimens will be exhibited at 8 P.M., as well as some illustrative specimens sent by Professor Charcot. If time permit, a case of Tumour of the Frontal Lobe with Few Symptoms, by Dr. Hale White, will also be read.

Saturday, November 29.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the Journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

VACCINATION FROM CALF LYMPH.

To the Editor of THE LANCET.

SIR,—In his address before the Islington Medical Society, Mr. Shirley Murphy stated (THE LANCET, May 31st, 1884) that it was too soon as yet to speak positively of the protection afforded by vaccination with the calf lymph of the Government institution in Lambs-conduit-street. The following case shows, I think, as far as any isolated case can do, that it is similar in this respect to human lymph.

One son out of a family of eight was attacked with small-pox, which, when first seen, on Oct. 2nd, had already proved fatal, the rash being then fully developed and thickly covering the body. The boy was nursed by his mother, who had a baby at the breast, which was therefore constantly in the room, but had never been vaccinated. On Oct. 3rd the baby was vaccinated with calf lymph, obtained from the Government Institution. By the 13th only one place had taken; but the child was very fretful, and a papular rash appeared sparingly over the body and face, developing into the characteristic umbilicated vesicles of small-pox, which were, however, very small, and died away almost before coming pustular, the total duration being about a week.

There can, I think, be no doubt that this was an extremely mild attack of small-pox; for the rash did not appear simultaneously with the vaccination vesicle, but several days later, and fresh spots kept coming out for two or three days. The probabilities are strong that its course was so modified by the vaccination; for most authorities agree that the prognosis in infancy is extremely unfavourable, the mortality, according to Carschmann (Ziemssen's Cyclopædia of Medicine), being as high as 58 per cent. for children under ten. Of the remaining six children in this family two had never been vaccinated, and had had small-pox; another unvaccinated child had died some years ago from that disease; while the remaining four, who had been vaccinated as infants, all escaped, though they had been twice exposed to the infection, showing a great tendency in the family to contract the disease unless protected by vaccination.—I am, Sir, yours truly,

Nov. 10th, 1884. R. W. GREENISH, F.R.C.S.

Mr. Blaney.—The Rev. Alex. J. D. D'Orsey, Prince's-square, W., or Dr. Altschul, Old Bond-street, W., might be applied to.

Mr. Gerrard.—Next week.

"THE LIBRARY OF THE COLLEGE OF SURGEONS."

To the Editor of THE LANCET.

SIR,—I should like to endorse the sentiments contained in the letter of "A Member" in your last issue respecting the closure of the College of Surgeons library. But I would extend my complaint much further, and ask why not only the library, but the museum also, should be closed at 4 P.M. on ordinary days and earlier on Saturdays? There must be many juniors, like myself, in London engaged either in study, literary work, or tuition, who are practically debarred from making use of these institutions at all by their absurdly prohibitive regulations in respect of closing. Most men have settled occupation during the daytime, which keeps them fixtures in some particular locality; the evening alone remains to them to engage in literary research, or to take their pupils over such excellent dissections as may be found in the College of Surgeons Museum.—I am, Sir, yours faithfully,

Austin Friars, E.C., Nov. 17th, 1884. KENNETH MILLICAN.

A NEW-BORN INFANT OF EXTRAORDINARY SIZE.

To the Editor of THE LANCET.

SIR,—Yesterday I attended a woman who was delivered of a male child of extraordinary size, weighing 20 lb. 2 oz., and measuring twenty-three inches in length, and fourteen inches and a half round the chest at the level of the nipples; it was well developed and quite healthy. These particulars were verified in the presence of two medical gentlemen I asked to be kind enough to check my statements, as they have such an incredible appearance.—I am, Sir, yours truly,

Crewe, Nov. 13th, 1884. GEORGE EDDOWES.

MICROSCOPIC OBJECTIVES.

To the Editor of THE LANCET.

SIR,—As your correspondent, "A Student," appealed to me by name in your issue of the 8th inst. I willingly reply, but, with your permission, I must enter into some detail, as the subject is not always well understood even by those who have had some experience in microscopy.

Of course, the prime essential in any glass is the quality termed "definition," which means that clear lines or contours should be sharply rendered, whilst the whole image should also be presented free from distortion. This depends on the perfection of the corrections. If a flat object, as a page of print, is viewed through a single lens, only the central part will be seen truthfully magnified and distinct, all the marginal portions being blurred and distorted, while any straight lines near the edge will be strongly curved outward, and bordered with fringes of colour. This arises from spherical and chromatic aberrations in the glass, and these are corrected by the successive lenses required for the due amplification, some of which are of flint and others of crown-glass. These have different dispersive power, and they are so carefully adjusted that the error of the one exactly neutralises that of the other. The compound lens, which we call an objective, is thus enabled to give a flat field of view, or one in which the object is focused all over and without any spurious colour. The finely ruled lines of a stage micrometer should appear equally distinct and straight to the edge of the field, while such objects as a balsam-mounted tracheal vessel of insects should show no colour in its closely set rings. A severer test of perfectness of correction is the using a high eyepiece. A very inferior foreign glass may, under a low ocular, seem to be nearly as good as a choice one, but put on an ocular one or two numbers higher, and it will break down into mist, while the definition of the better glass remains but little impaired. With fine glasses the second, or B, eyepiece may be habitually employed with advantage, while good work can be done under oculars up to E, thus giving a wide range of powers with only two or three objectives.

When several objectives of the same power are offered at different prices, as your correspondent remarks, it will be observed that the "angle of aperture," as it is called, varies accordingly. This expresses in degrees (360 to the circle) the diameter of the cone of rays which the front lens can take in. The wider this is the more difficult it becomes to render the corrections perfect, hence the price rises in proportion. But the enlargement of aperture only improves the glass for certain purposes, while it may even deteriorate it for general use. Every degree added increases the "resolving power" (the corrections being equally well made), but this is only needed for a special class of objects. It is not synonymous with definition in the broader sense, or only represents one restricted phase of it—namely, the displaying delicate surface-markings, as on the more difficult diatoms. It is the almost exclusive use of these as tests which has led our opticians to enlarge the angular aperture at any sacrifice. One serious drawback is the "shallowness" of view which it causes. It is true that in theory a glass should only focus sharply one single true plane, but such a glass would be practically useless, as very few objects are absolutely flat. The artificial eye, like the real one, should have more or less adaptability for distance; should show fairly a certain depth of an object, or it cannot give any useful view of it. For example, let us examine an injection, or dry stellated leaf, with a half-inch of 80°, and we may find that only bits here and there, which happen to be in precisely the same plane, will be focused, while all the rest is in fog. If we replace this half-inch by another of only half its angle, or 40°, the whole will be usefully seen in fair perspective view. At the same time no one part will show with the same exquisite sharpness as when actually focused before. Hence for determining difficult and delicate points of structure, glasses of high angle become invaluable on occasion, even to the histologist, though for general use on the ordinary run of objects they are inferior to those of only moderate aperture. In fact, the lower the angle the greater is the penetrative power, so that for very uneven objects the lowest angled glass should give the most complete view. But the dimness of the object, from the lesser amount of light received into the glass, imposes a limit in this direction and compels us to a compromise. An example will illustrate this. Wray makes no less than three one-inch of the same power, and only differing in their angles of aperture, which are respectively 16°, 23°, and 27°. By repeated close scrutiny I have found that all three are perfectly corrected, so that, in its own way, the first is as fine a glass as the last, which is double the price. It will give an even better view of rounded and uneven natural objects, as seeds, microfungi, insect eggs, foraminifera, &c., of which the last glass will have a far less comprehensive grasp. On the other hand, the latter would show minute structural details, especially of surface, more clearly and sharply defined. Were it not for the cost, a microscopist might usefully have all the three one-inch, though their power is alike, one displaying best certain objects, another certain others; but where only one can be had the medium angle is the most generally useful. Thus for the histologist the one-inch of 23° and quarter-inch of 90° would be preferable to either the more expensive ones or those of 16° and 70°, though I must add that the latter of Wray's are fully adequate for the student, and will be found far superior to foreign glasses at the same price. They are so perfectly corrected as to work well under E ocular.

Having thus endeavoured to give a practical, and I trust intelligible, reply to your correspondent's query, I must pause. I might have added some impartial data from my experience of various glasses and makers, which I should be willing to do at a future time, if desired.

I am, Sir, yours obediently,

FREDERICK W. GRIFFIN, Ph.D.

Bristol School of Chemistry, Nov. 10th, 1884.

THE following lines, from an esteemed Prelate, will be read with gratification by the profession, not only for their own sake, but for the fact that they proceed from one of another calling, whose wise estimate of medical heroism and kindness will tend to correct narrower views which are held too often by those of whom better things might have been expected.

UNTITLED HEROISM.

PART I.

Lay him in his quiet grave,
With no marble token;
There are deeds so simply brave
No words need be spoken.
Such men need no epitaph,
Nor the sculptured glory:
Flowers are best, for deaths like theirs
Are sweet as Nature's story.

You think that doctors have no hearts,
So passionless their features
As calm they stand with knife in hand
Over living creatures!

But true compassion grows in man
When pity's soft emotion
Becomes a principle of life,
As tide within the ocean.

And he whose nerve is well controll'd,
Whose hand is strong and steady,
May, more than sobbing, frighten'd girl,
Have pity true and ready.

Those calm, clear eyes will quickly see,
But wince not at the danger;
Those quick, firm hands will skilful work,
Ungrudging, for a stranger.

PART II.

A little child was brought in here,
The death-grasp round its throat;
The poison fast was weaving there
Its filmy, mard'rous coat.

One moment more! Another way
Is made for the deadly stream;
Tender and merciful in touch,
The knife, with its rapid gleam!

But slow to move is the loathsome thing.
There is danger in delay!
But firm, brave lips are pressing there,
To draw the death away.

The peril he knows; but he bravely drinks
The poison draught defiled,
To give another day of life
To the little stranger child!

No ardour of battle urges him,
No fame or title's won,
No loud applause, no trumpet blown;
But calmly the deed is done.

And now he is dead; for the poison flood
Hath drained his life away.
And could a hero in battle
Do more than this, I pray?

We shall build our solid, sumptuous tombs
For those who our foes have slain;
But no marble tells of life laid down
For our people in death and pain.

Yet, leave him in his mossy grave,
And let us our home-way take;
But hold henceforth a doctor's work
More high for the dead man's sake.

And I, who have had given me
Christ's gospel in charge to preach,
Hold nobler far the gospel-lived—
More eloquent than speech.

Dr. Percy Boulton.—We are sorry to be obliged, from want of space, to omit from our columns many communications which we would, if we had room, gladly publish.

A.B.—Such a mode of advertising would be decidedly unprofessional.

INTERMITTENT IRITIS.

To the Editor of THE LANCET.

SIR,—The following case may interest your readers, and I shall be glad of any hints as to treatment and prophylaxis.

A. B——, aged forty, a tall, well-developed man, of temperate habits, has frequent attacks of gouty iritis. He is a retired military man, and amuses himself by composing music and chess, and it is noticed that an attack always follows a chess match. The attacks at first occurred at intervals of two years. During the past year he has had three attacks in February and April when at Hyères, and now in October, each attack lasts about three weeks. They at first yielded to half-drachm doses of iodide of potassium, bicarbonate of potash, and colchicum. Now, one-drachm doses of iodide of potassium do not control them, although the soft palate and pharynx are quite turgescent, except in rendering the pain less acute. The pupil is always kept dilated with atropine, the diet moderate, and a small quantity of whisky allowed. Excessive nocturnal pain is treated with one grain of opium.

I am, Sir, yours truly,

Nov. 11th, 1884. VIATOR.

THE COST OF A SMALL-POX EPIDEMIC.

By accident an error crept into the calculations in our sub-leader of the 15th inst. The total actual cost of 2040 cases of small-pox to the State of Illinois amounted to over $231,000 00 (or 231,000 dollars), and the constructive loss to over $3,339,600 00 (or 3,339,600 dollars), and the expenses to the State during the period of the epidemic to close upon $4,404,000 00 (or 4,404,000 dollars).

"IRRITATION OF THE SKIN FOLLOWING THE APPLICATION OF VASELINE AS A SURGICAL DRESSING."

To the Editor of THE LANCET.

SIR,—In your issue of Nov. 8th you publish a communication from A. W. Mayo Robson, F.R.C.S., of the Leeds General Infirmary, entitled "Irritation of the Skin following the Application of Vaseline as a Surgical Dressing." Immediately after reading the same we sent Mr. Robson the following letter:—

"Nov. 12th, 1884.

"Dear Sir,—The last issue of THE LANCET (Nov. 8th) contains a communication from you in which you state that 'severe inflammation of the skin has been set up by the application of 'vaseline' as an ointment, and you go on to give several cases in which you have observed this effect.' As the word 'vaseline' is the registered trade mark of this company and can be applied only to goods of our manufacture, your statement is a grave injury to us and a reflection upon the quality of vaseline, which has received the unanimous commendation of the highest medical, chemical, pharmaceutical, and scientific authorities during the past twelve years, and it becomes a matter of the greatest importance to determine whether you really used vaseline or some imitation fraudulently sold under that name. Will you be good enough therefore to more particularly describe the article you used, and say, where it was procured?

"Awaiting your reply, we are, very truly yours,

"CHESEBROUGH MANUFACTURING COMPANY.

"To A. W. Mayo Robson, F.R.C.S., Leeds General Infirmary."

To this we have his reply:—

"Hillary-place, Leeds, Nov. 17th, 1884.

"Dear Sirs,—The vaseline used at the infirmary may be manufactured by someone else, but you can easily get the information you require through Mr. Whiteley, the dispenser, or through Mr. Blair, the manager. The vaseline I used in private was made by yourselves, or at all events was sent out with your name affixed. I am sorry if injury to your trade should occur by my paper, but my experience is not solitary. I fancy some skins will be irritated with vaseline, however pure.

"Yours faithfully,

"A. W. MAYO ROBSON."

During last June our representative visited the Leeds General Infirmary and ascertained that they were using a common grease, which the dispenser called "mineral fat," and which in no way resembled vaseline. As price seemed to be the primary object, and not quality, he suggested a trial of our ordinary red, or veterinary, vaseline, which we sell for use on animals only. Since then we have supplied the hospital with three lots of this article—viz., June 27th, 50 lb.; July 19th, 200 lb.; Sept. 15th, 200 lb.; and we are to-day in receipt of a further order for 200 lb.

Mr. Robson states in his communication that he used "vaseline of a greenish colour." This is not the colour of vaseline, and leads us to suppose that he employed the mineral fat in the cases referred to. In any event, we have supplied the hospital only with our inferior grade, made for use on beasts; and no one acquainted with the difference between the two could expect the same beneficial results from the application of this article to the delicate skins of human beings as from the application of the refined product made especially for the purpose. But the fact that the veterinary has been used so long in such quantity by so prominent an institution as the Leeds Infirmary speaks well for the quality even of that article. As for Mr. Robson's opinion that he fancies that "some skins will be irritated with vaseline, however pure," we think we can safely leave it to the profession to decide whether, on his own showing, he has had sufficient experience with the pure vaseline to justify his statement.

We rely upon your spirit of fair play to give this letter an equally prominent position in your journal which you accorded to Mr. Robson's communication.—We are, Sir, yours faithfully,

CHESEBROUGH MANUFACTURING COMPANY.

Holborn-viaduct, London, E.C., Nov. 17th, 1884.

To the Editor of THE LANCET.

SIR,—In reference to the experiences of Mr. A. W. Mayo Robson and Dr. H. Stowers on the above subject, perhaps the following case may be of interest.

I had been treating a female patient, aged about forty years, who was suffering from lupus exedens of the nose and left cheek. After the more vigorous treatment, I with decided benefit had recourse to a mild mercurial oxide ointment, the body of which was composed of vaseline and olive oil in equal parts, with sufficient white wax to give it the proper consistency. Not having some of this ointment one day, I sent the patient some vaseline *pro tem.* The next morning when I called I found her suffering from a considerable amount of inflammation of the skin around the nose. After a few days I returned to the use of the previous ointment, which suited admirably. Subsequently I again used the vaseline, to try its effect, when it produced the "dermatitis" as before, and I dared not try it again.

In this case it is apparent that although the patient could not tolerate vaseline alone, yet when used in combination, or diluted with other emollients, it had lost its irritating effect.—Yours faithfully,

J. MICHAEL NICHOLLS, L.R.C.P.Lond., &c.

St. Ives, Cornwall, Nov. 17th 1884.

Mr. E. F. Yeates.—Heads of tapeworms can be well displayed and preserved in glycerine or in glycerine jelly, but probably Dean's preservative gelatine is the best medium. Whatever medium is employed care must be taken to soak the specimen in it for several days before finally mounting. Great improvements have of late been introduced, but for the beginner Davies' little book, price 2s. 6d., on the "Preparation and Mounting Microscopic Objects," is perhaps the best. Mr. Dean's preservative fluid is described in Dr. Beale's book, "How to Work with the Microscope," fifth edition, p. 67.

Mr. D. Gulland.—It is undoubtedly injurious.

THE WANT OF PRACTICAL TEACHING IN MIDWIFERY.

To the Editor of THE LANCET.

SIR,—My attention has been drawn to the statement made by Dr. Haughton, on Oct. 10th, in the General Council of Medical Education, respecting the incomplete manner in which newly qualified men were turned out by the medical schools of Dublin fifteen or sixteen years ago with regard to their practical knowledge of midwifery. I am very much afraid that this statement is just as applicable to the present time as to the past—at least, so far as my experience leads me. I have met with men possessing the M.D. of Dublin, also the L.K.Q.C.P. and the L.R.C.S., who have practically no knowledge whatever of midwifery. In my own practice, within the last twelve months, I have been called in to assist two of them in ordinary cases of version, and in neither case did they know how to proceed. The first of the two cases was a very simple one, and was over in twenty minutes. In the second case the arm was protruding, and the highly qualified man, with honours, had not even digitally examined, but was satisfied, by *looking*, that he could do nothing. I have also had men from the Irish schools acting for me as locum tenens, and when I have afterwards heard of the cases they attended it has been that the midwife did the work for them, one (a L.K.Q.C.P.) leaving the afterbirth. Surely, these are not the class of men to do credit to the profession. For my part, I prefer a man who has either served an apprenticeship or been an unqualified assistant before taking his degrees than one who is all theory and no practice. The former has learnt while unqualified that, for his own reputation, he must be careful; but the latter go out upon the world, armed with their wonderful diplomas, to kill or cure—and, and to say, it is the former in very many instances—before the owners of such diplomas have learned their practical work. Would it not, in fairness to the future qualified men, be more to their interest to insist upon them actually conducting fifty cases, of which twenty should be under the direction of some medical man. Surely, twenty cases, as at present required, are not enough to give a man an insight into the hundred and one different things which at any moment crop up in actual practice. Until our universities and medical schools can see their way to teach midwifery differently than by lectures, I am afraid the qualified men of the future will not shine as obstetricians.

I am, Sir, yours truly,

Nov. 10th, 1884. MEMBER BRIT. MED. ASSOC.

Constant Reader.—We have already noticed the offensive announcement, and we believe the attention of the Colleges whose diplomas are thus disgraced has been called to the matter.

"M.B. PASS EXAMINATION, UNIVERSITY OF LONDON."

To the Editor of THE LANCET.

SIR,—A gentleman who read my letter in your last issue has just pointed out to me that "unilateral hæmatokelpos" is mentioned in Quain's Dictionary under the head "Vagina." Allow me, therefore, to correct the inaccuracy.

As you have allowed a correspondent to ask whether that question could be "the crux of a dyspeptic examiner," you may perhaps permit me to call attention to another paper at the same examination. The following is one of the six prescriptions set by the examiners in medicine, and required to be "written in Latin, without abbreviations, with directions for administration":—"Order mustard poultices to be applied to the calves of the legs for a given time." I should like to ask these gentlemen, who are hospital physicians, whether they have ever considered the classical Latin in which they would direct a nurse, or even a dresser or house-surgeon, to have sinapisms applied to a patient's calves? If so, have they ever, either in hospital or private practice, ordered a nurse or other attendant to do so in Latin; and, in that case, whether their directions were understood and carried out?

A University which allows its graduates to be ignorant of Greek may perhaps be excused for expecting them to talk dog-Latin to nurses, &c.

I am, Sir, yours truly,

Nov. 17th, 1884. A LONDON TEACHER.

A Candidate of Twenty-Six Years' Service.—We have not inserted our correspondent's letter, because we understand that steps have already been taken to meet the difficulty of which he complains.

MEDICAL PRACTICE IN CANADA.

To the Editor of THE LANCET.

SIR,—If any of the readers of THE LANCET could give me any information in reference to practice in Canadian towns, I should esteem it a favour. I am desirous of learning the amount of fees usually paid, also whether it is difficult to obtain a practice, and the amount of the premium required in relation to the annual cash receipts.

I am, Sir, yours truly,

Nov. 12th, 1884. GENERAL PRACTITIONER.

Mr. J. H. G. Drummond.—The course of cholera is too uncertain to enable us to advise in individual cases; but so far as the intentions of the German Government have been disclosed, they are not in favour of such regulations as would prevent anyone in Germany from returning to this country, even if cholera did break out.

H. E. T.—We are unable to supply the information.

THE INCOME-TAX.

To the Editor of THE LANCET.

SIR,—It may be a help to your correspondent "In Morsu Diaboli," whose letter complaining of his assessment under the income-tax appeared in last Saturday's LANCET, to know that I found myself three weeks ago in the same plight that he complains of—that is to say, I received a notice of assessment to an amount that nearly equalled the total of my gross receipts, notwithstanding that I had duly returned some months previously a schedule showing that I was only liable for a sum somewhat less than half that now claimed. I at once wrote to the surveyor of taxes announcing my intention of appealing against the assessment. I also forwarded to him a statement of my expenses and receipts for the year, as requested on the notice. In reply, the surveyor wrote to say that if I would call upon him he could probably arrange matters without troubling me to appeal before the Commissioners. I called upon him, with the result that, after a slight contention as to the amount of one of the items I had deducted in the way of expenditure, he reduced the assessment to within a few pounds of the amount I had originally claimed to be assessed upon, and told me he should advise the Commissioners to assess me accordingly.

I may add that the following items are recognised as working expenses, and are allowed to be deducted from the gross receipts to obtain the amount of profits upon which the tax is payable—viz., half or third of amount of rent of dwelling house, if a portion of it be used for professional purposes; whole rent of branch surgery or consulting-rooms in another street or district, if used solely for professional purposes; rent of stables, &c., if rented separately from house; cost of drugs, instruments, and surgery requisites, and wages of surgery boy and assistant; keep and expense of horse or horses; coachman's wages. These items were furnished me by a surveyor of income-tax, and I have always found them allowed.

I am, Sir, yours faithfully,

Nov. 18th, 1884. L.R.C.P. LOND.

To the Editor of THE LANCET.

SIR,—Allow me to wish your income-tax correspondent well out of the "Morsus Diaboli." "Diaboli" is the correct name for Income-tax Commissioners. I have always fought them, and always successfully.

In appealing, a surgeon must give the details and amounts of his receipts for the three previous years on one side, and all his professional expenses for the same years on the other; deduct the one from the other and divide the remainder by three, and this will give the amount he will have to pay on; he can deduct life insurance premiums if he produce the receipts to be properly endorsed. Let him demand to be put on his oath as to the truth of his statements.

As to policy! Remember that the diaboli gossip with themselves and others; the diaboli do not regard their obligation to secrecy. Do the diaboli number any of his present or prospective patients among their number? If so, is it wise to say I am not so prosperous as you think? Many surgeons, I know, think it is not wise, and pay on their gross, and more than their gross, receipts, and think they are rewarded for their lie. Do the diaboli number any medical neighbours among them? If so, is it worth the money and deceit to hoodwink them? I am inclined to say, as a matter of policy, Do not follow my example, but act a lie and humbug the diaboli. I am, Sir, yours faithfully,

Framlingham, Nov., 1884. GEO. E. JEAFFRESON.

M.D.—No; penalty attaches to the assumption by an unregistered person of any name or title implying registration.

M.R.C.S.—Any corset maker will carry out instructions for the manufacture of the apparatus.

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